



Informal document **GRE-70-41-Rev.1**
(70th GRE, 21-23 October 2013,
agenda item 4(b))

ECE/TRANS/WP.29/GRE/2013/57

**Alternative
aiming/leveling
(explanations)**

Tomasz Targosinski Ph. D. Eng
Poland
70 GRE 21-23 October 2013





Informal document No. **GRE-65-30**
(65th GRE, 28-31 March 2011,
agenda item 5(d))

„Analysis of the influence of aiming,
on visibility distance and glare”





AUTOMATIC LEVELLING

AT PRESENT - DESIGN ORIENTED REQUIREMENT

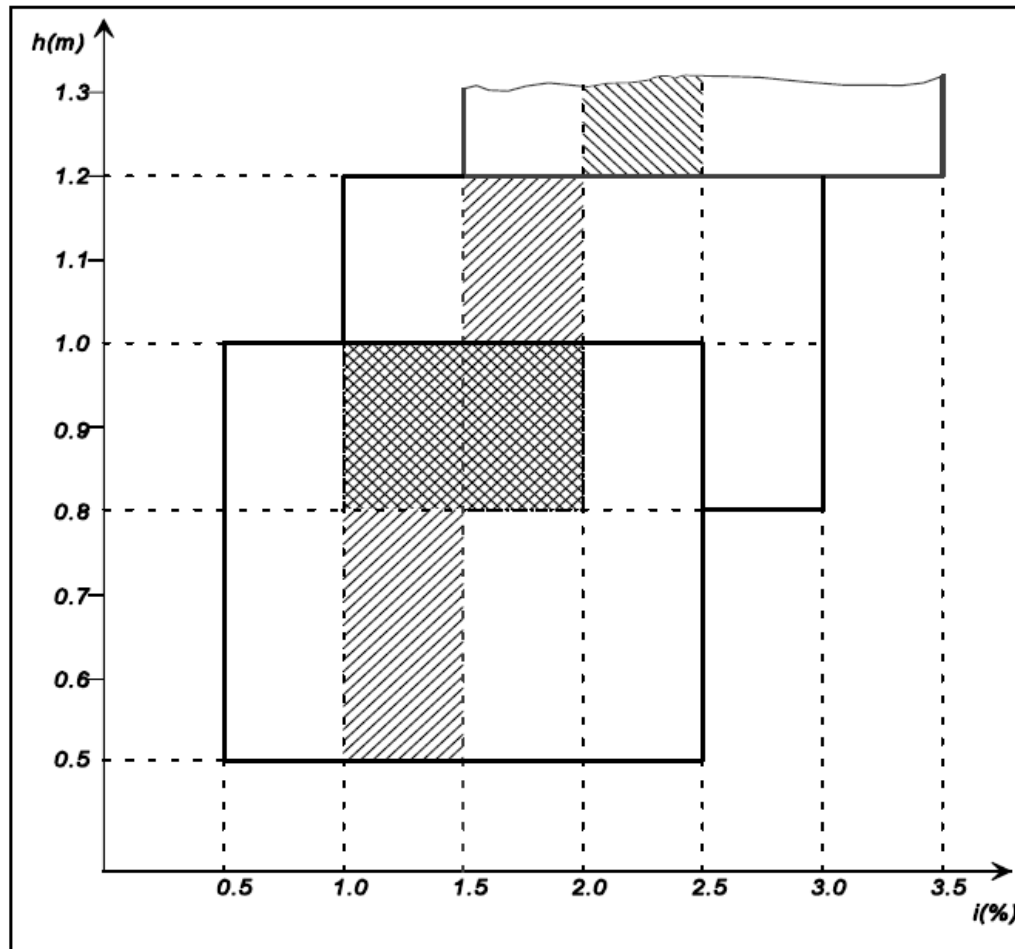
- 2000 lm (artificial arbitrary criterion)
- Gas discharge (35W, 25W?)
- LED

No relation to performance



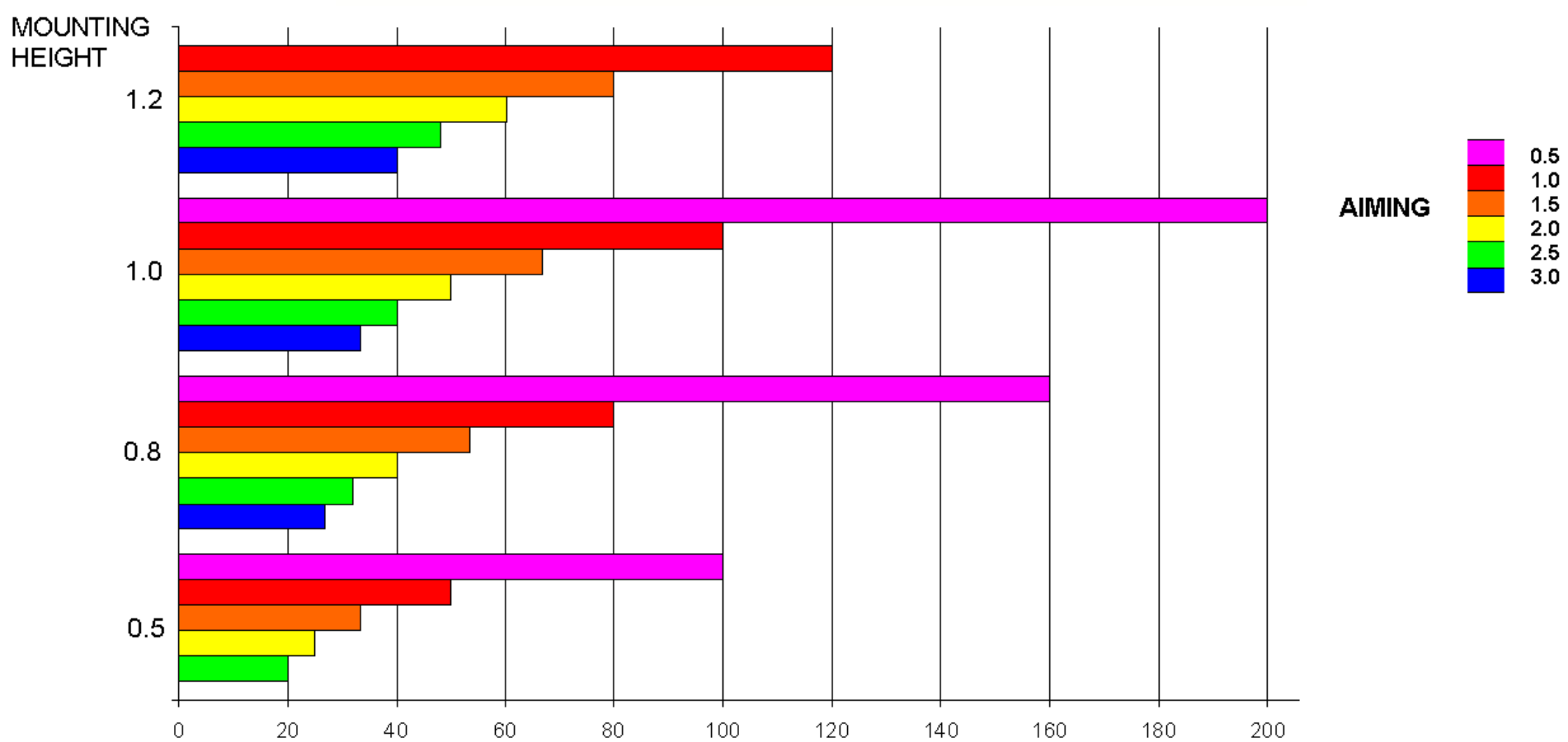


HISTORICAL ARTIFICIAL AIMING/LEVELING PROVISIONS

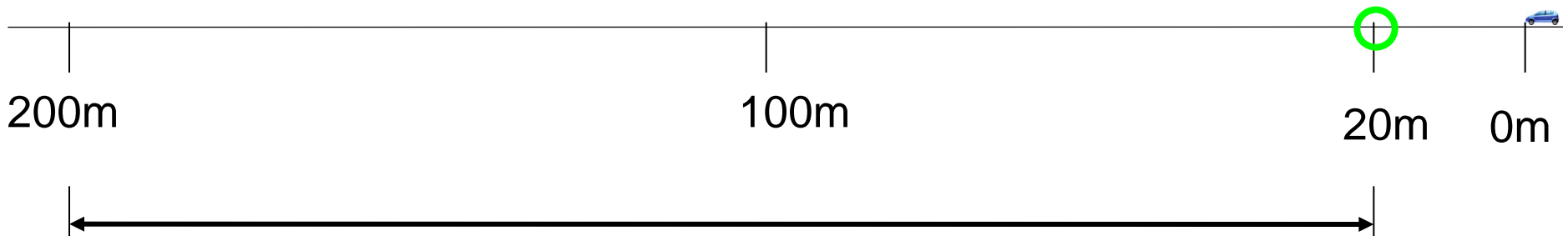




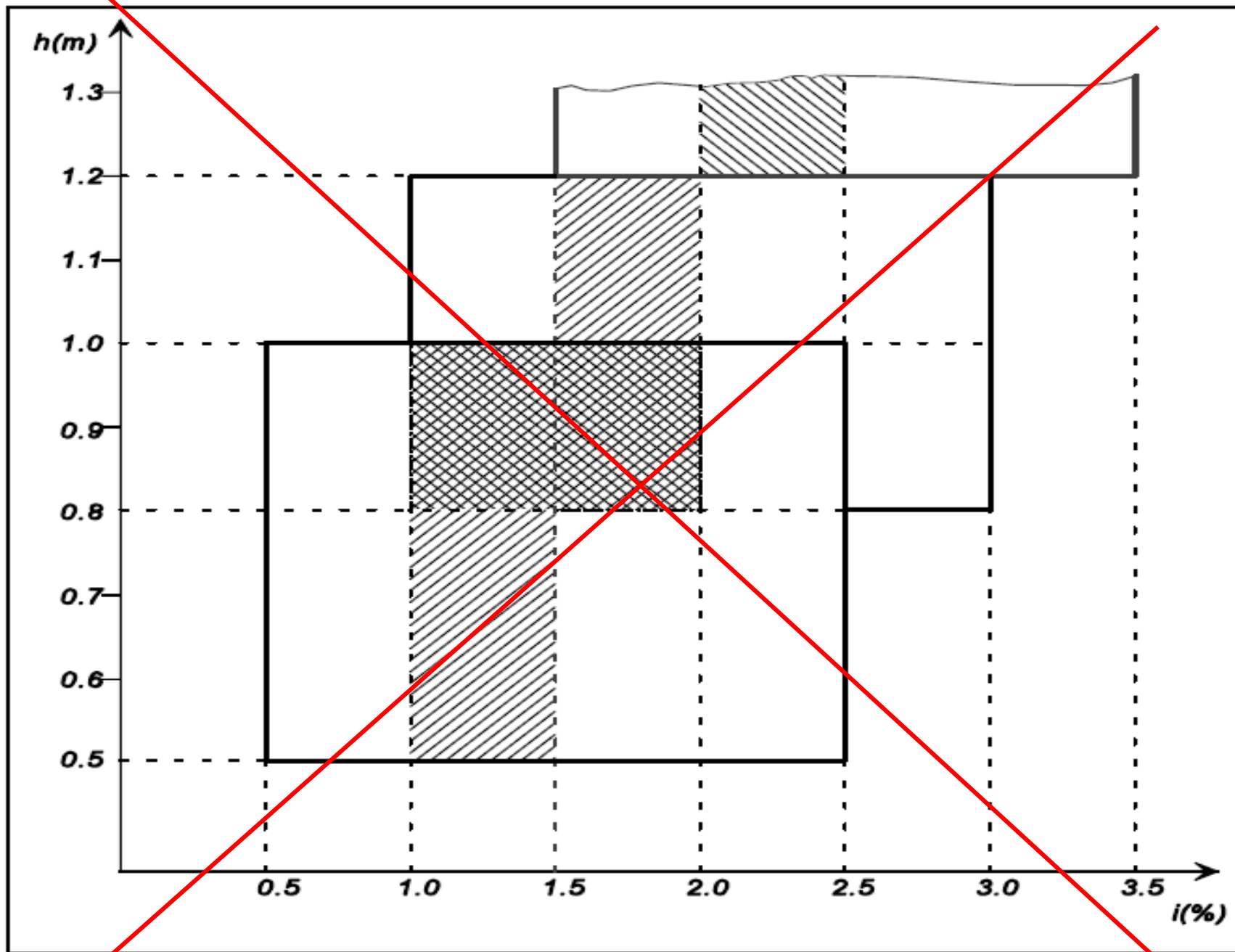
PRESENT REGULATORY (Reg.48) ROAD ILLUMINATION DISTANCE [m]



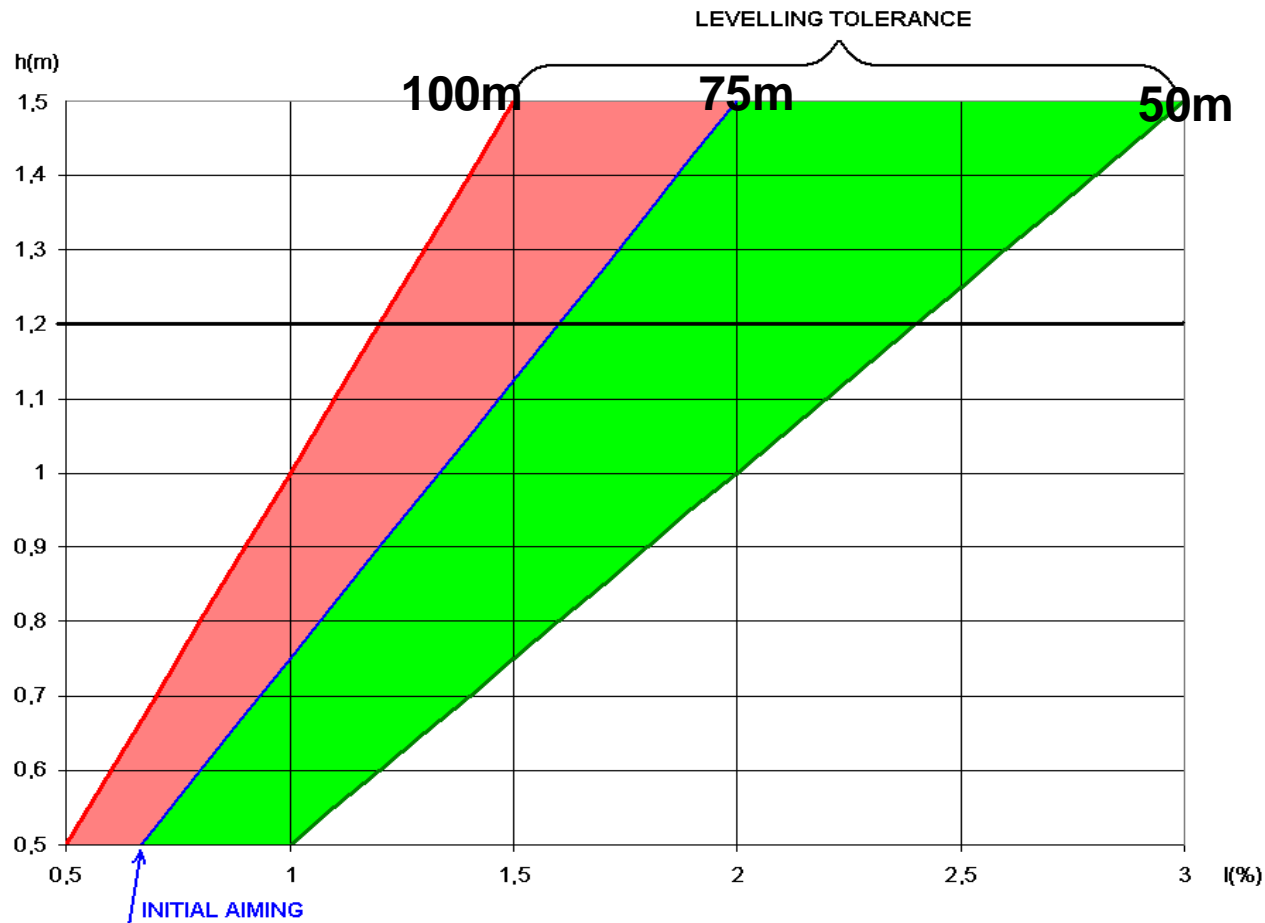
Real sizes and distances



**Possible road illumination distance in Reg 48.
CoP tolerances not taken into account**



Proposed road illumination distance dependent aiming/leveling (75m, 50m-100m)





First version of Polish proposal (aiming/leveling)

Informal document No. **GRE-65-13**
(65th GRE, 28-31 March 2011,
agenda item 5(d))



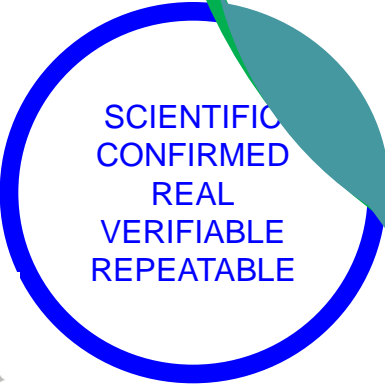


Informal document No. **GRE-67-33**
(67th GRE, 26-29 March 2012,
agenda item 4(c))

- Explanations regarding decision making
- Three possible options:
 - Optimum (a)
 - With information to drivers (c)
 - Arbitrary obligatory automatic leveling (b)



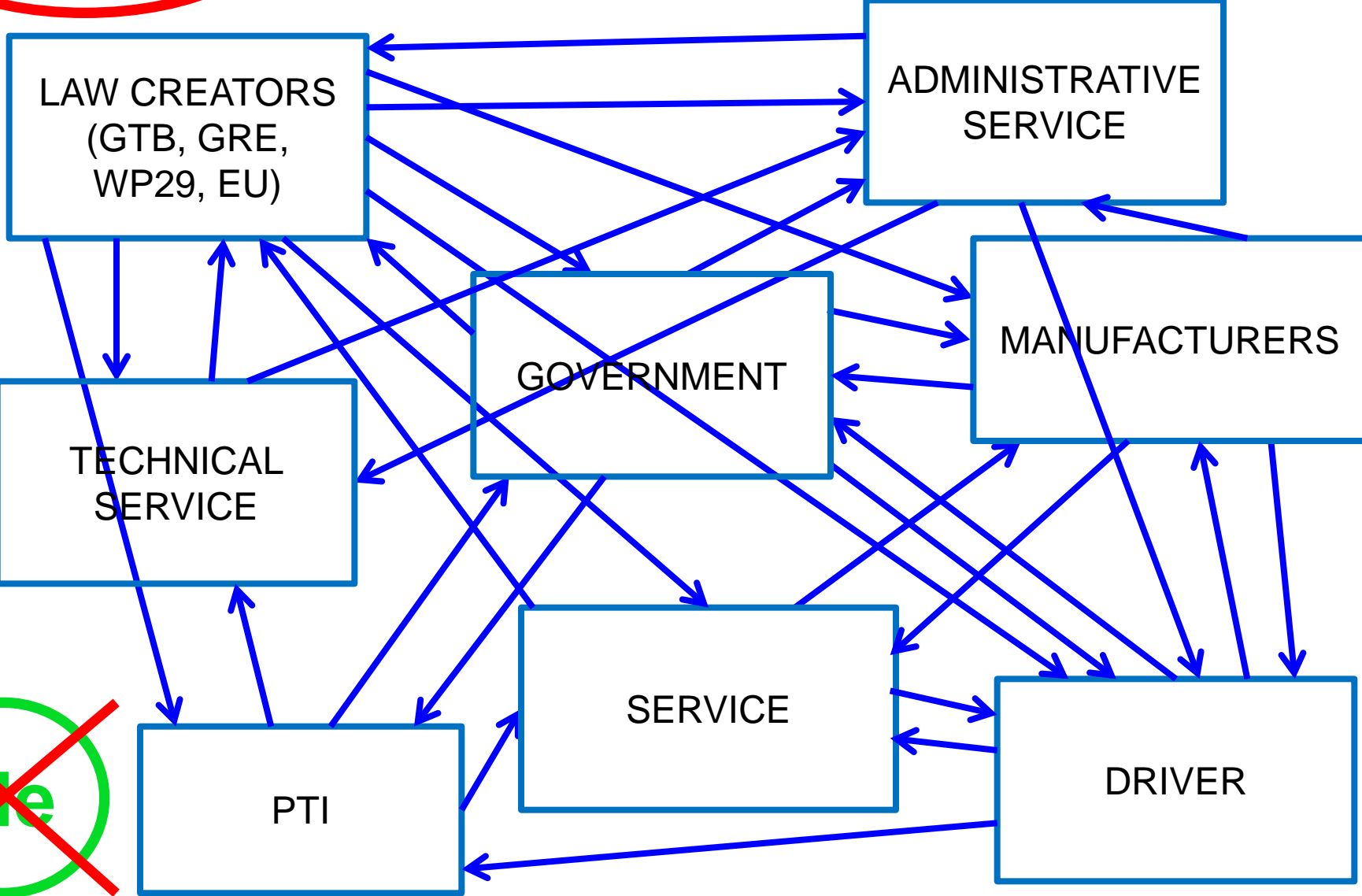
BASE FOR REAL HUMAN DECISIONS IN MOST SITUATIONS



RATIONALITY IS IN MINORITY

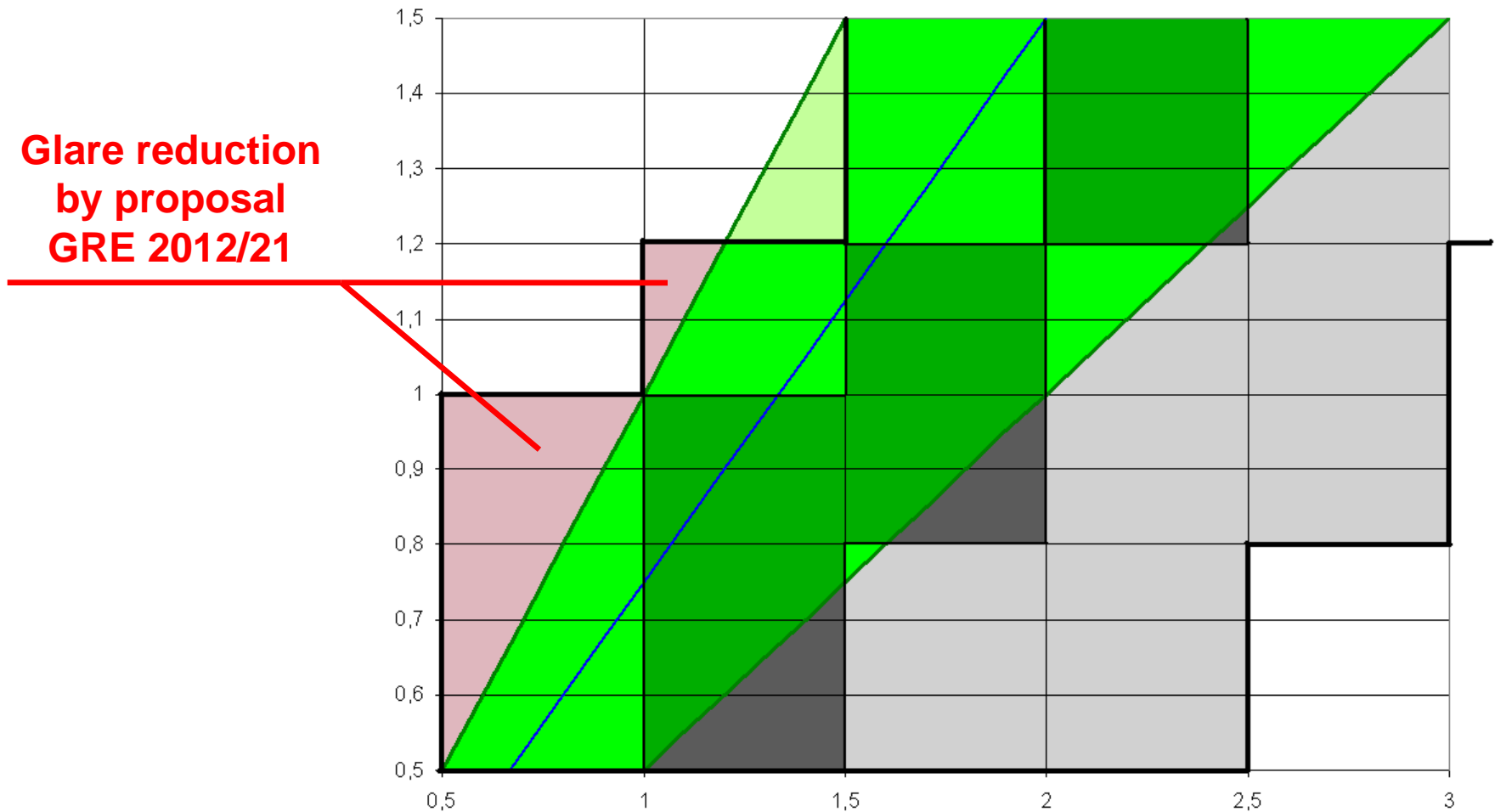
WHO IS RESPONSIBLE FOR ROAD SAFETY ? *(in lighting domain)*

**MY
BOSS**



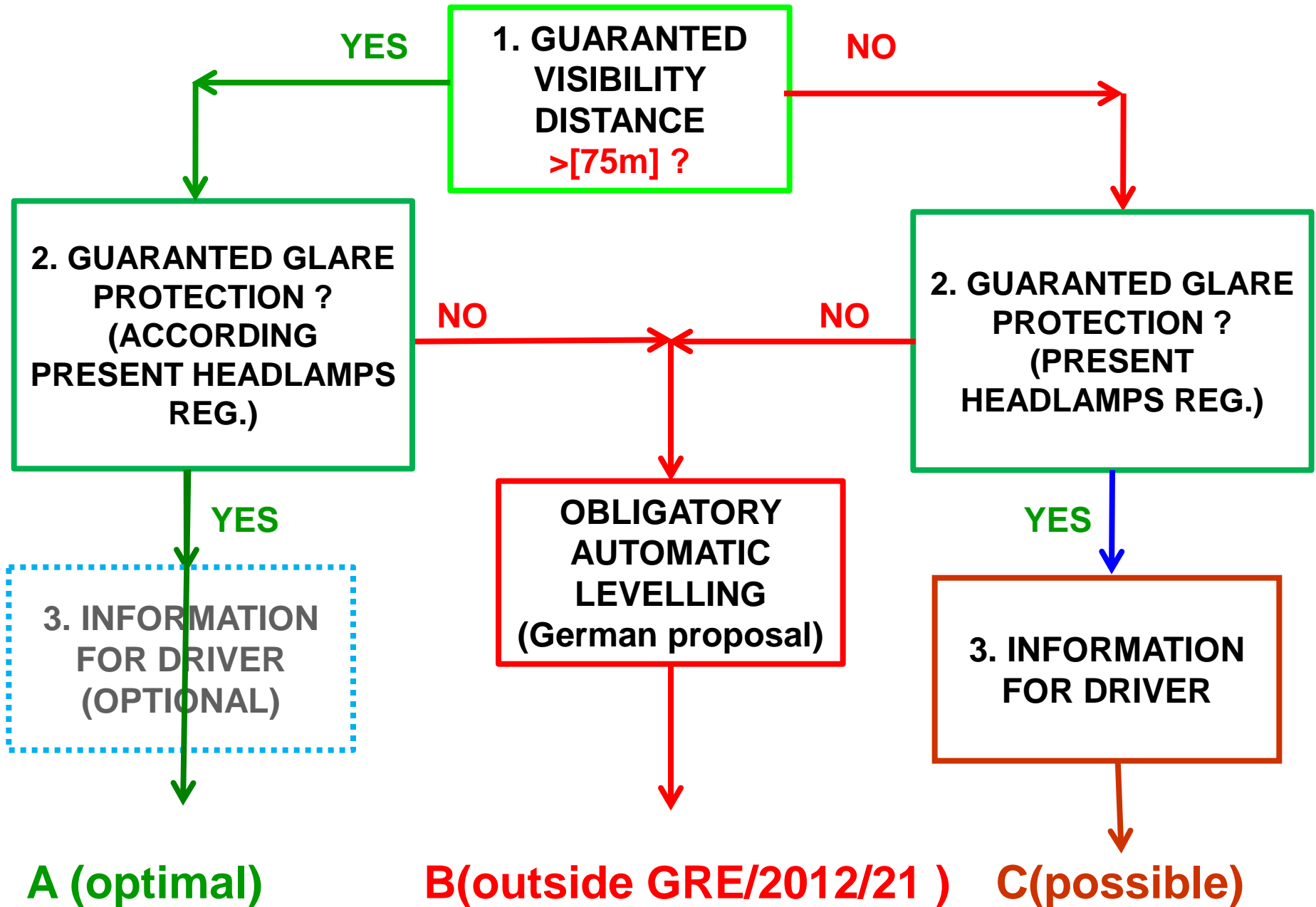
~~Me~~

GLARE PROTECTION



Proposal reduce glare comparing present situation for most vehicles, especially cars

HOW WILL WORK GRE/2012/21





Comments on GRE/2012/27(Lighting & Signalling WG)

Headlamp Initial Aiming

Informal document No. **GRE-67-27**
(67th GRE, 26-29 March 2012,
agenda item 4(c)(i))

Informal document No. **GRE-68-20**
(68th GRE, 15-18 October 2012,
agenda item 4(c)(i))

OICA strong opposition against proposal



Polish strong response against OICA arguments

Informal document No. **GRE-68-31**
(68th GRE, 15-18 October 2012,
agenda item 4(d))

Proposed Initial nominal aim to correspond to 75m theoretical range

- Under proposal,
 - No overlap between height bands
 - Most headlamps would be aimed higher than at present

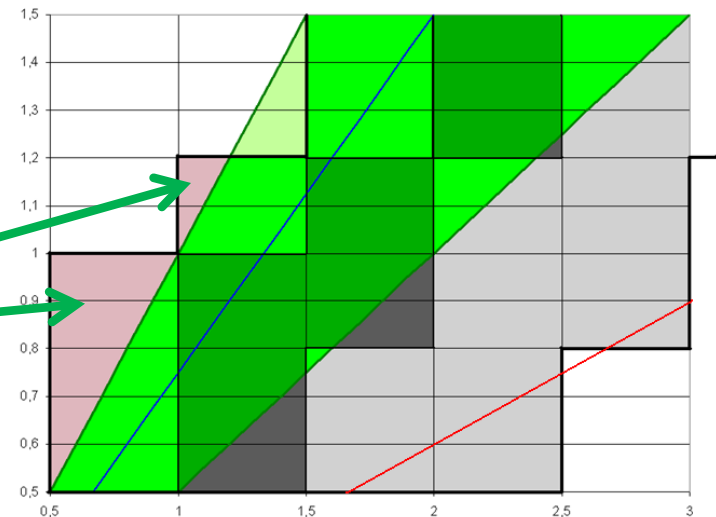
What for are needed overlaps?

It will depend on manufacturers decision and choice of range of amended Reg.48 (30 to 100m or 50 to 100m)

It will be safety oriented advantage and goal of amendment because of longer average road illumination distance.

- Risks increased glare.

Not true. Decreased glare comparing present state.





Polish greatly mitigated proposal(s)

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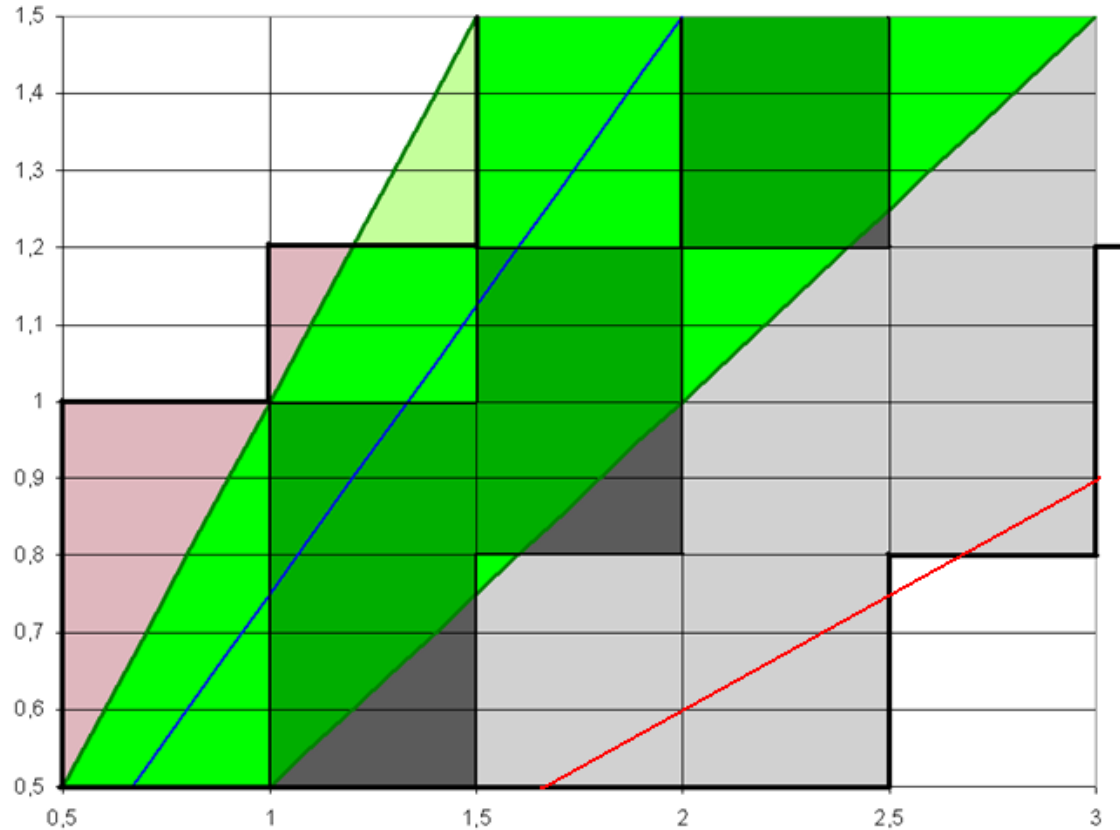
&

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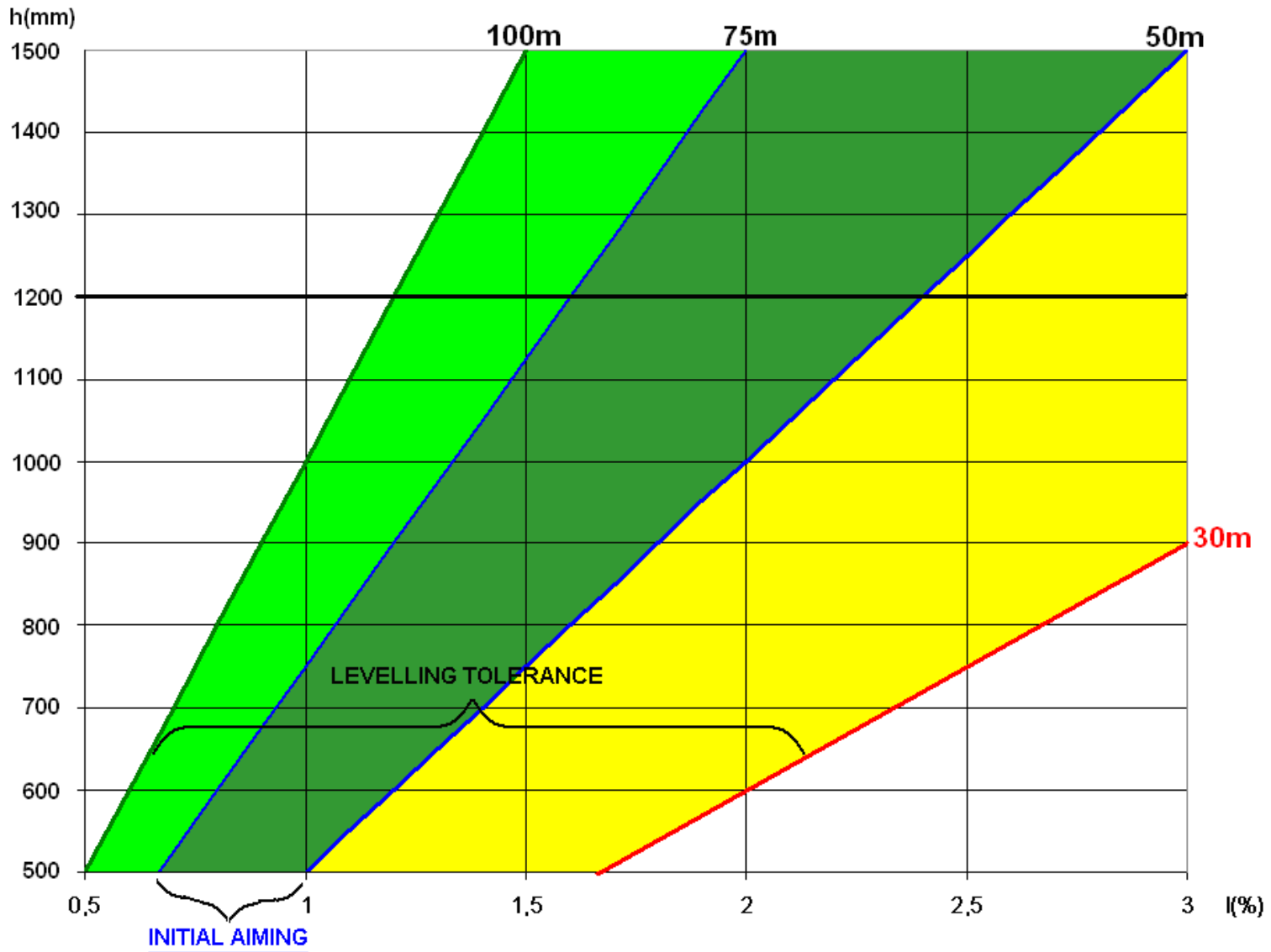


Polish greatly mitigated proposal(s)



Near as today requirements







ECE/TRANS/WP.29/GRE/2013/57

Fully optional requirements



GOOD, COMBINED PROPOSAL

**true
„PERFORMANCE ORIENTED”**

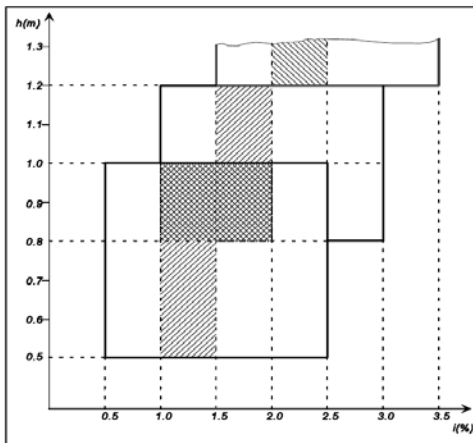
OICA

**AS TODAY:
ARTIFICIAL 2000lm
„DESIGN ORIENTED”**

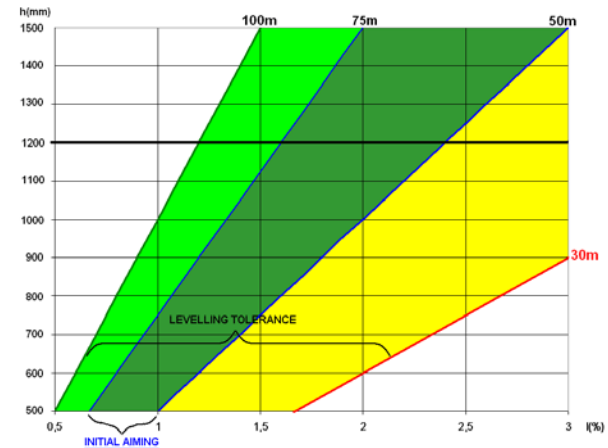
OR

**NEARLY AS TODAY BUT
„PERFORMANCE ORIENTED”
ROAD ILLUMINATION DISTANCE AS
CRITERION, NO RESTRICTIONS
MANUFACTURER CHOICE**

NO 2000 lm NO LIGHT SOURCE CRITERION



**MANUFACTURER
CHOICE**





**THANK YOU FOR YOUR
ATTENTION**

