

View from ICRP

COMET Workshop

29-31 August, 2016 – Chernihiv, Ukraine

Almudena Real

CIEMAT. Madrid, SPAIN

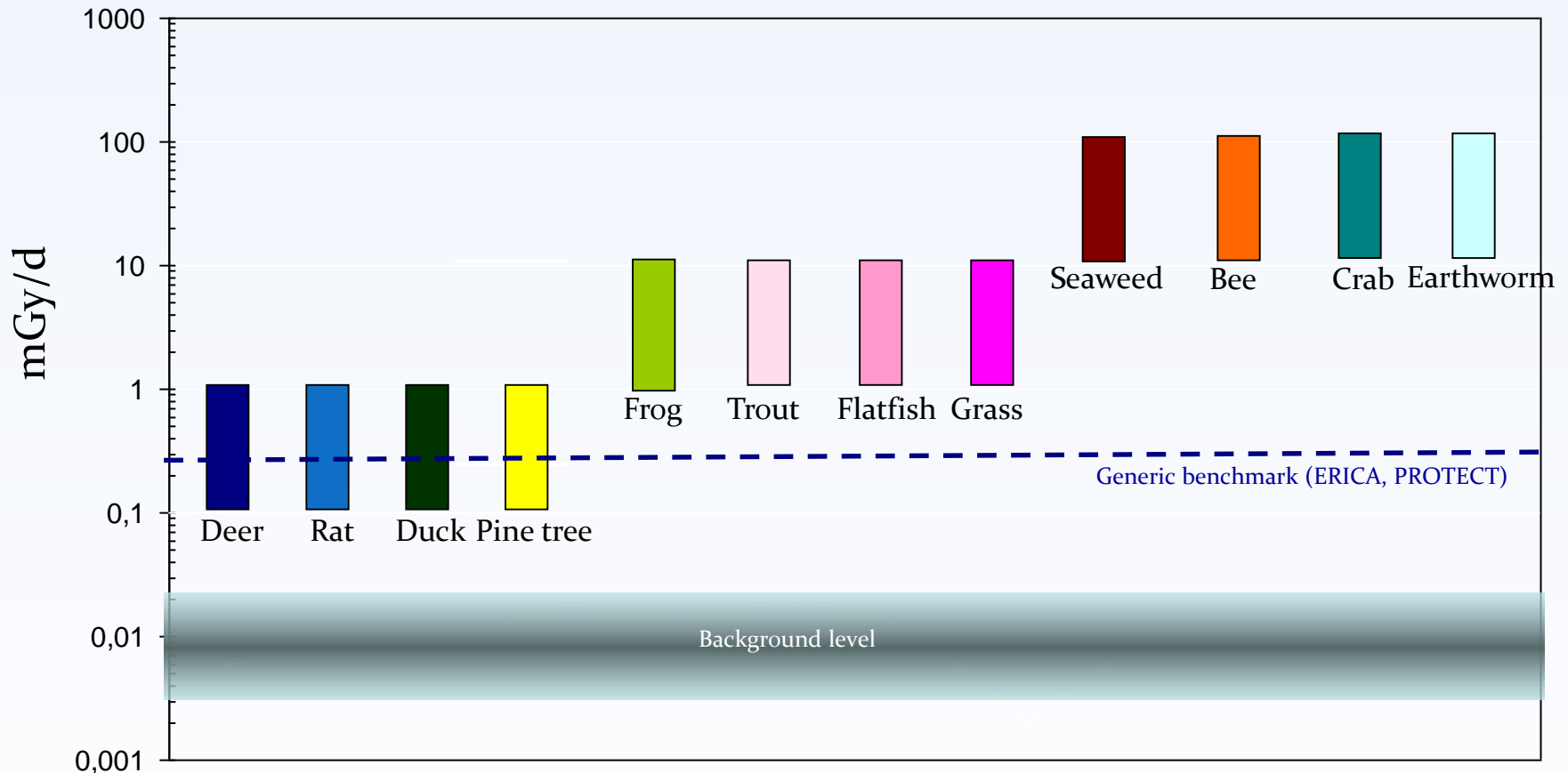
Vice-Chair, ICRP Committee 5

Derivation of the DCRLs

mGy d ⁻¹	Pine	Grass	Seaweed
100-1000	→ Mortality of some trees after prolonged exposure. [46 Gy LD ₅₀ at 130 mGy d ⁻¹]	→ Reduced reproductive capacity	→ No information*
10-100	→ Mortality of some trees after very long exposure [76 Gy LD ₅₀ at ~30 mGy d ⁻¹ for ten years] • Growth defects. • Reduced reproductive success.	→ Reduced reproductive capacity	→ No information
1-10	→ Morbidity as expressed through anatomical and morphological damage. Prolonged exposure leads to reduced reproductive success.	→ No information	→ No information
0.1-1	→ No information	→ No information	→ No information
0.01 – 0.1	→ No information	→ No information	→ No information

DCRLs: defined in terms of bands of dose rates spanning one order of magnitude relevant to each RAP

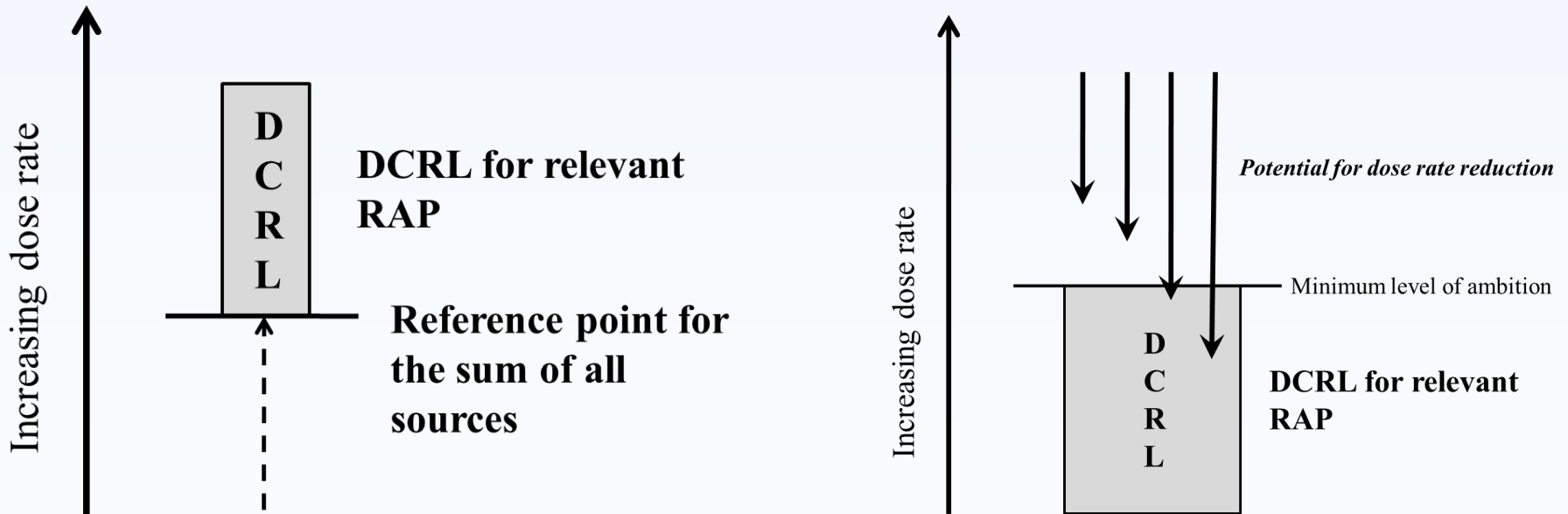
DCRLs



DCRLs: **as points of reference** to evaluate the appropriate level of effort to expend on environmental protection, dependent on the overall management objectives, the exposure situation, the actual fauna and flora present, and the numbers of individuals thus exposed.

Application

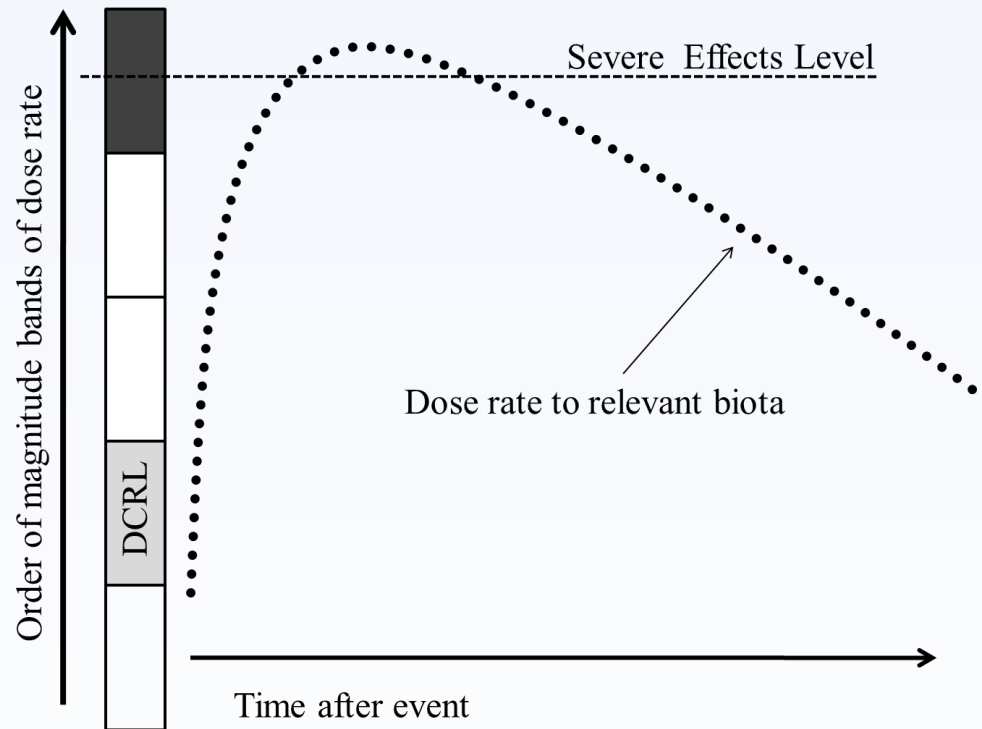
Planned and existing exposure situations



Planned exposure situations are exposure situations resulting from the operation of activities involving radioactive sources. Planned exposure situations may give rise to exposures that are anticipated to occur (normal exposures) and to exposures that are not anticipated to occur.

Application

Emergency exposure situations



Emergency exposure situations are exposure situations resulting from a loss of control of a planned source, or from any unexpected situation (such as a malevolent event), that requires urgent action in order to avoid or reduce undesirable exposures.

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Thank you for your attention

