

EU Workshop

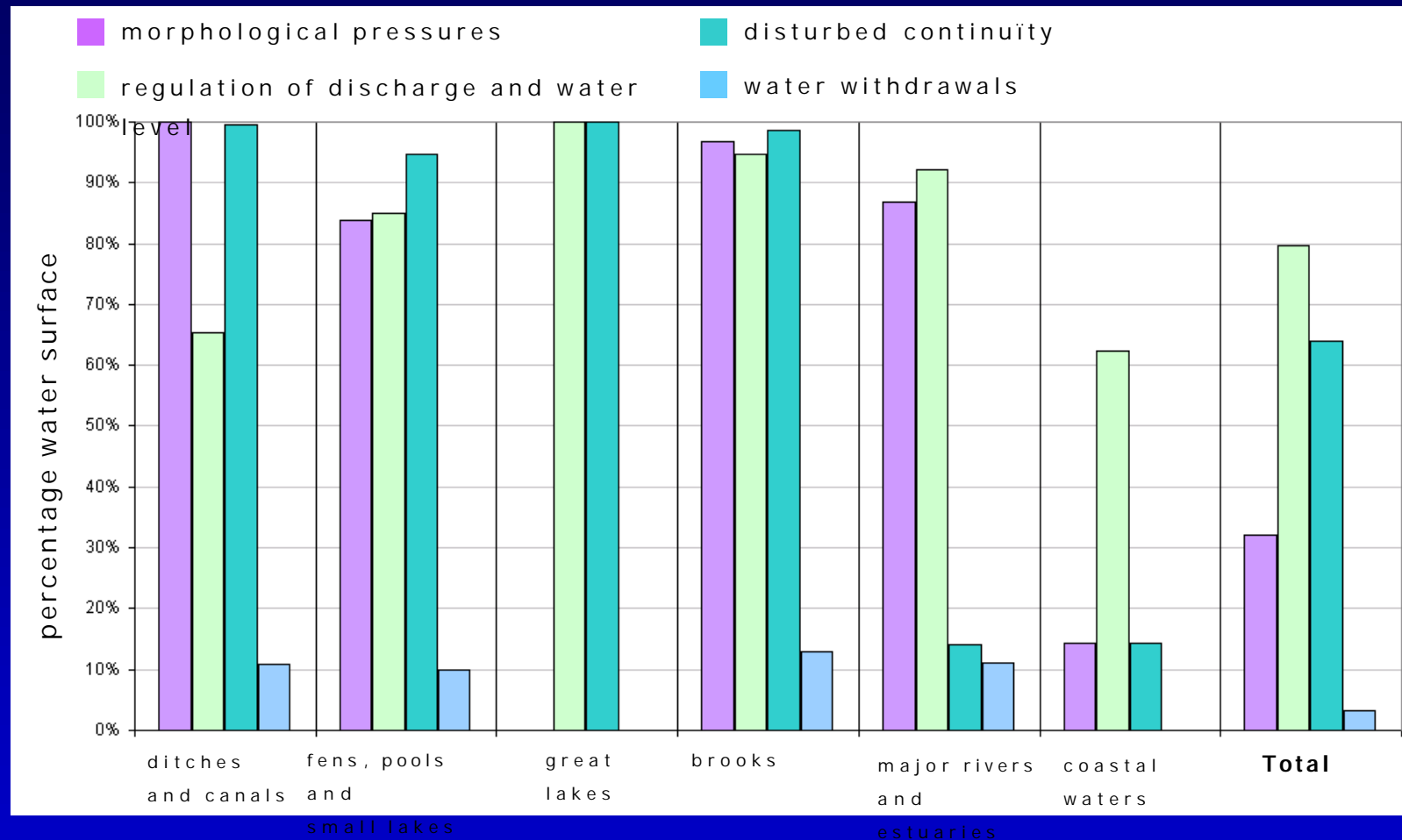
WFD and Hydromorphology

17-19 October 2005, Prague

Session IV: Risk assessment criteria

Wim van Leussen, The Netherlands

hydromorphological pressures in Deltarhine



→ almost all water bodies are affected,
but what is the morphological and biological quality?

→ > 90% of all water bodies are (provisionally) AWB or

Article 5 Characterization Report (2004)

- hydromorphological risks haven't been assessed in great detail for the art.5 reports
 - no assessment method was worked out
 - most water bodies were already "at risk" on the basis of one or a few substances and the criterion '*one-out-all-out*'

- list of 24 hydromorphological interventions

Refining risk assessment

NL

Morphological interventions in the river, lake, etc.

No.	hydromorphological intervention	No.	hydromorphological intervention
1	intake of surface water	13	(dis)connecting catchment areas
2	dams or comparable barriers	14	artificial discharge distribution at high discharges
3	weirs, sluices, etc.	15	artificial discharge distribution because of draining by mills
4	canalisation	16	water intake
5	normalisation / regulation of rivers, etc.	17	water level regulation
6	impairment of natural inundation zones	18	decrease of river discharge through groundwater withdrawals
7	dikes, levees	19	accelerated discharge
8	deepening	20	(intensive) maintenance work
9	bank enforcement	21	sand withdrawal
10	culverts	22	sand suppletion
11	impairment of riparian zones	23	bed enforcement, hardening of the bed
12	groynes	24	ploughing of the bed by fishery

We produced, for all relevant types of water bodies:

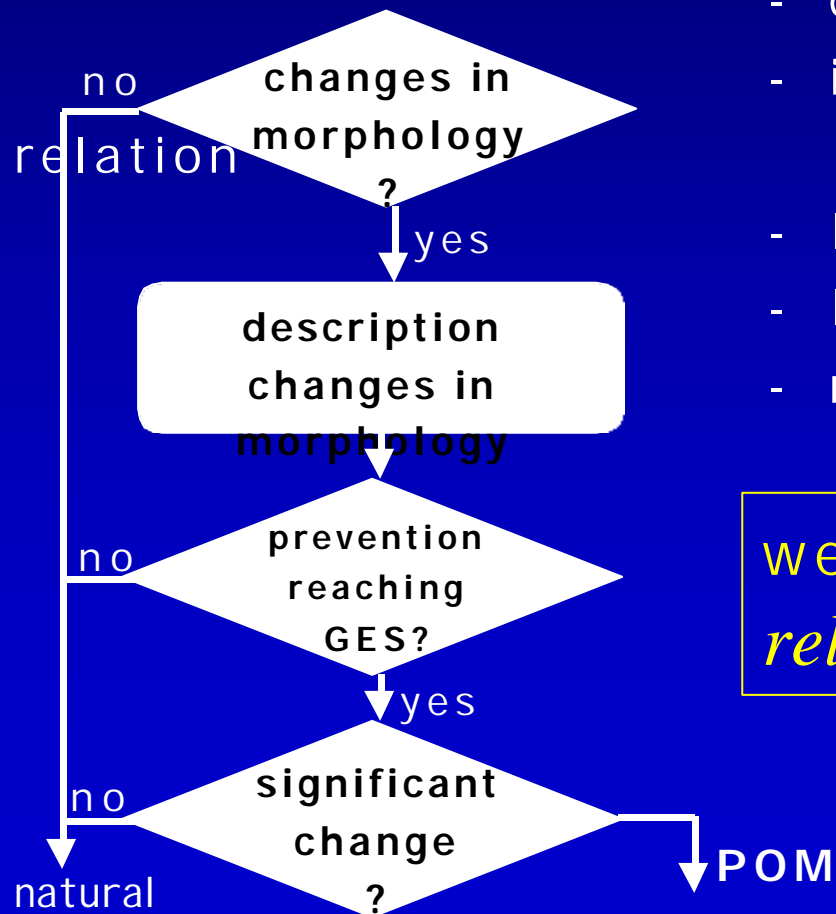
- description of hydromorphologic intervention
- indication of the effect on biological functioning of the respective type of water body

For all types of WBs: morphological description

(habitat, channel features, bottom substrate,
etc.)
(report on typology and references)

For all morphological interventions:

- description of intervention
- intervention - biological effect
- list of suggested measures
- list of mitigation measures
- measures - effect relations



weak point:

relation measures – biological effects