

# Barrier removal: time to prioritize our priorities



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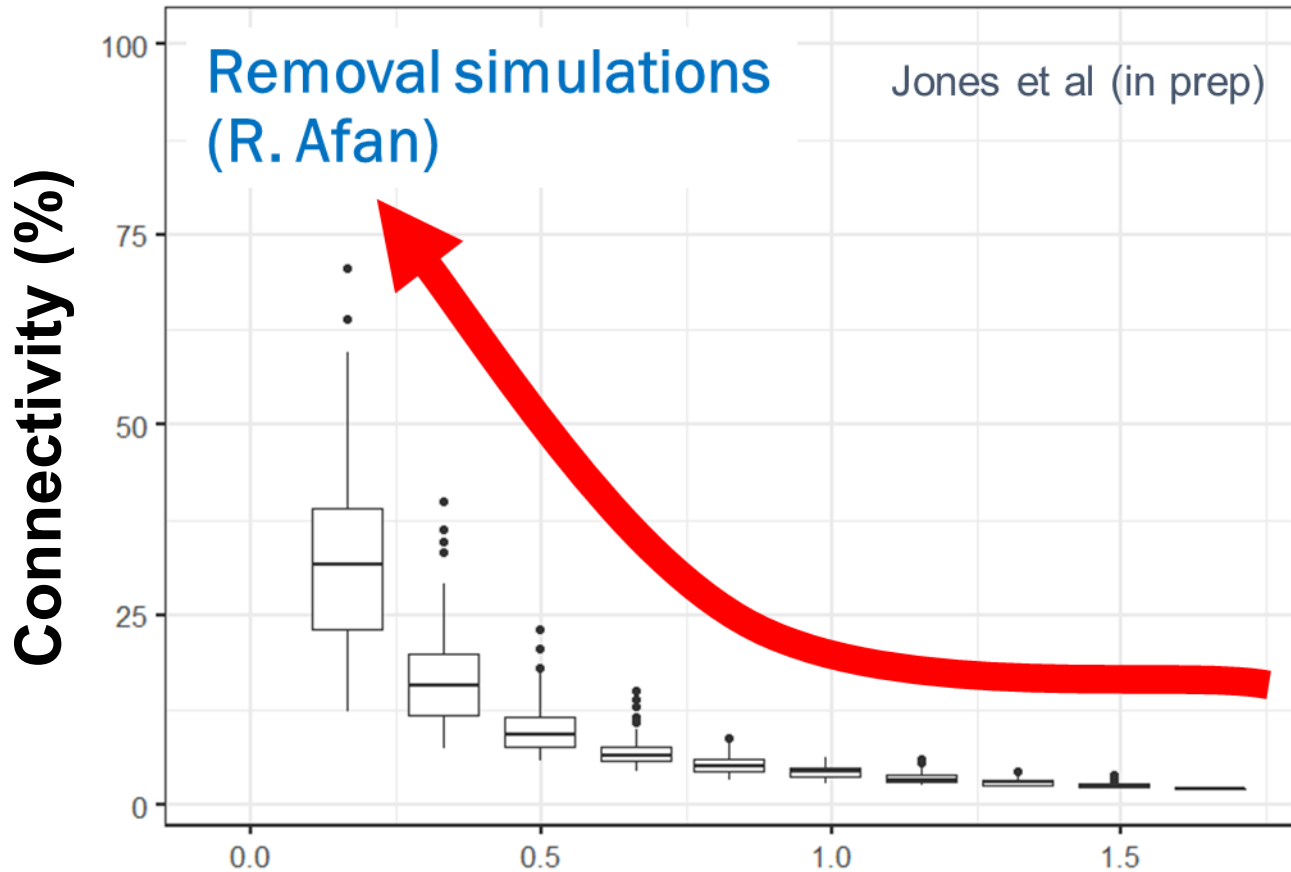
**Free Flow Conference 15-17 April 2024**

# Two different priorities

1. Prioritizing rivers

2. Prioritizing barriers

# Prioritizing rivers



1. Opportunistic small scale removals (~random) do not restore continuity significantly (but can help kick-start it)

2. Focus on moderately fragmented rivers, not on heavily fragmented ones

Removal worth it



100%

70%

50%

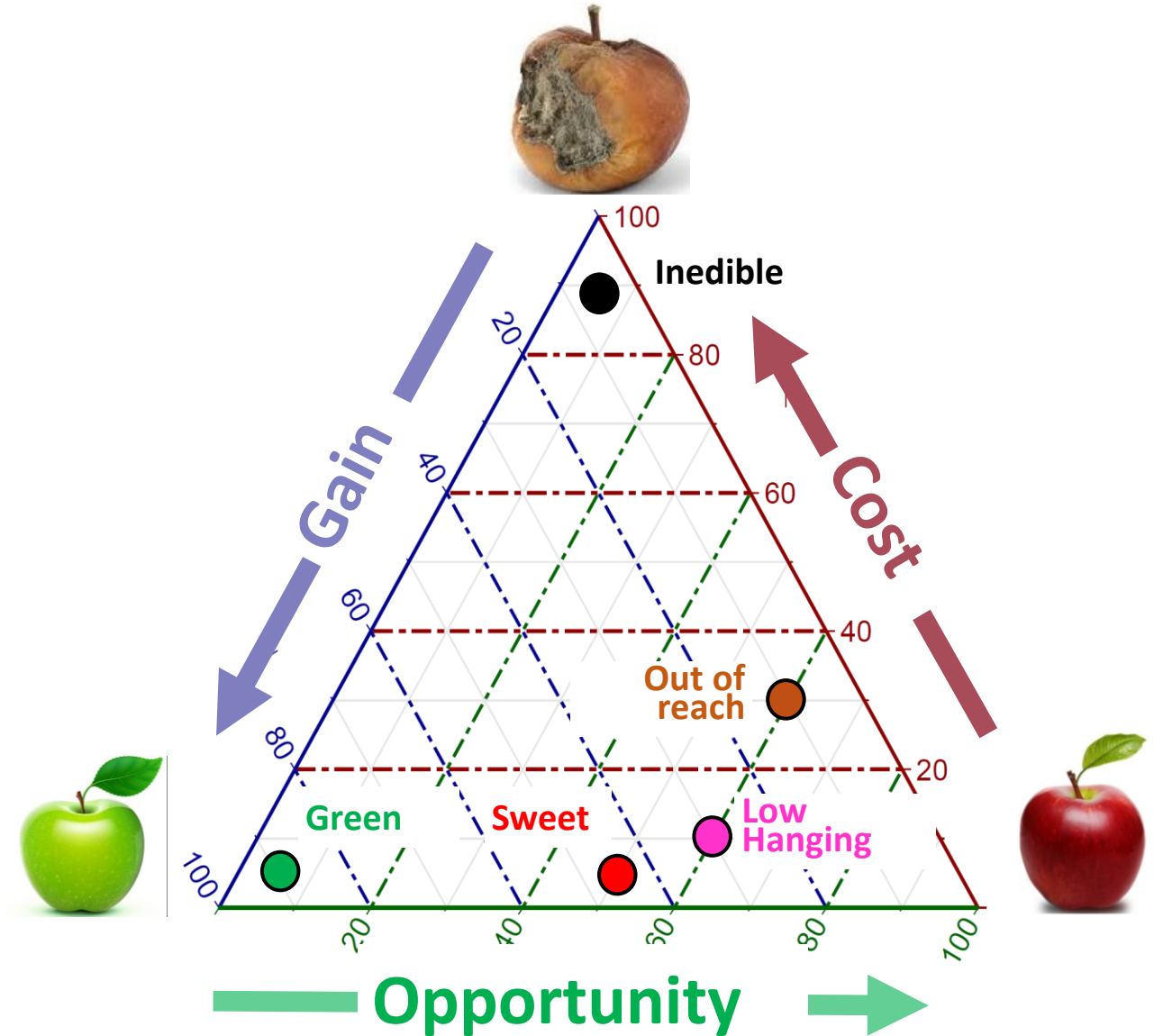
10%

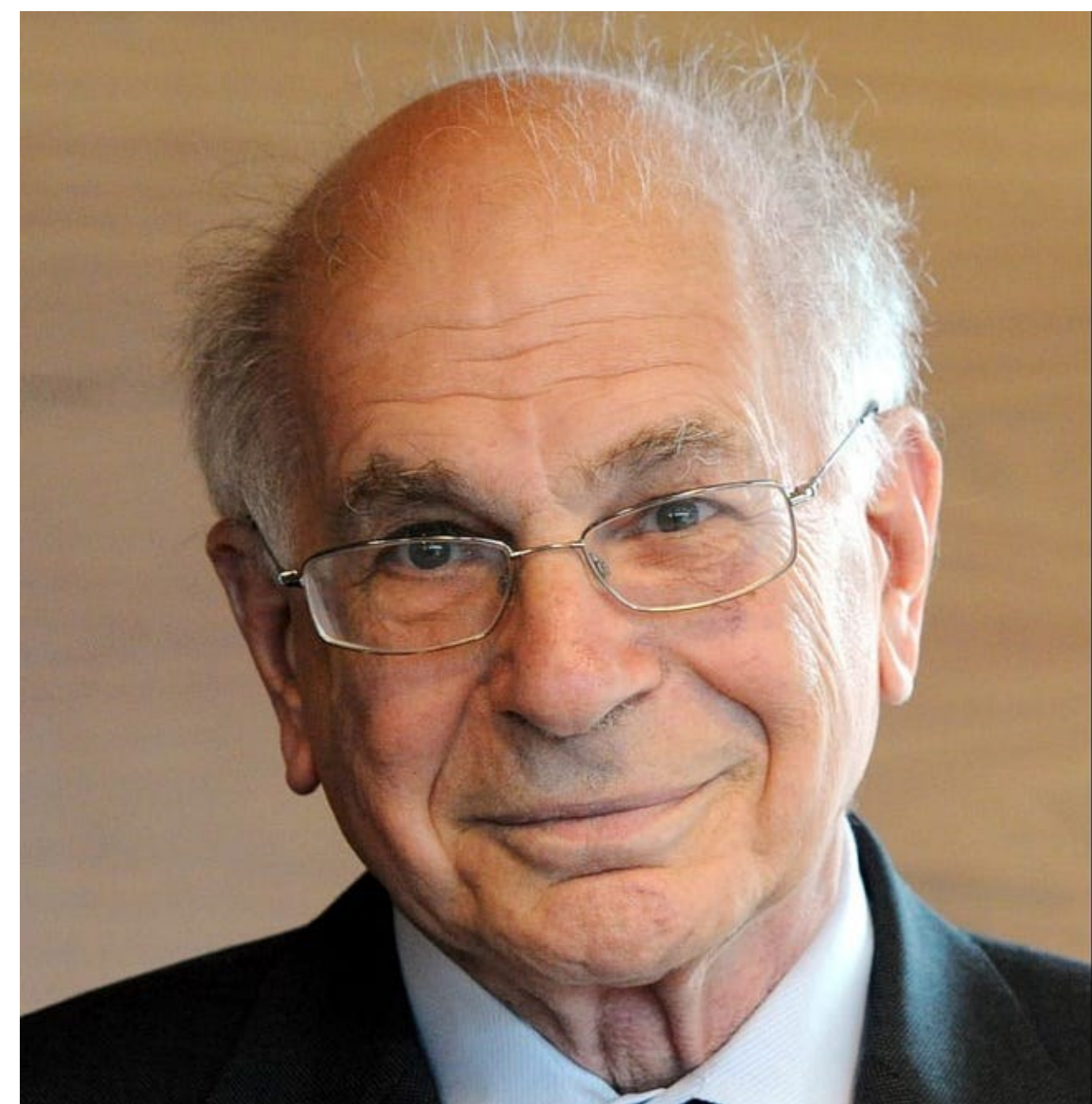
Proportion of removed barriers

Removal NOT worth it

# Prioritizing barriers – the sweet spot

- 1. Opportunity ✓
- 2. Cost ✓
- 3. Benefit ✓



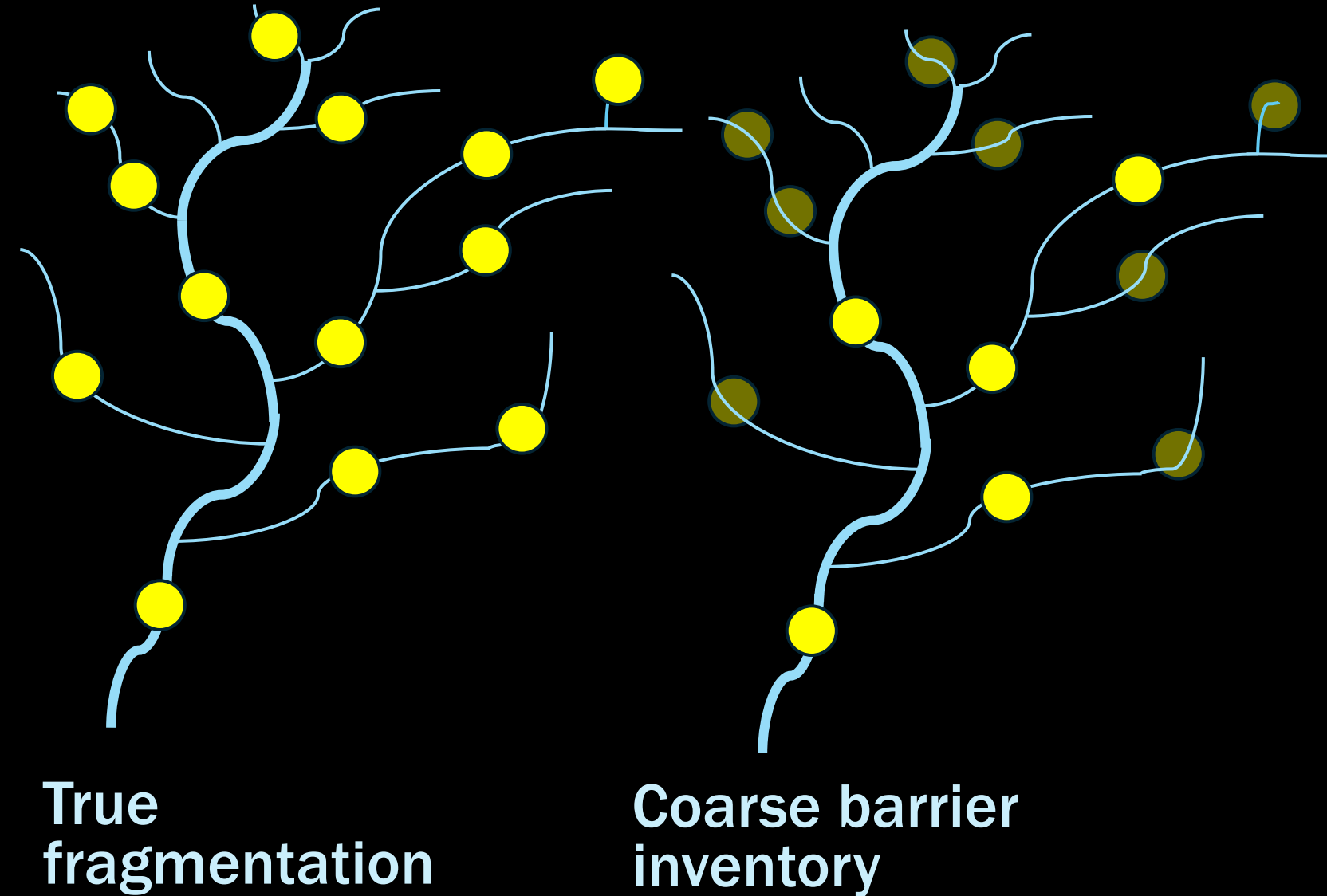


THINKING,  
FAST AND SLOW



DANIEL  
KAHNEMAN

# P1. Coarse barrier inventories



Poor barrier inventories

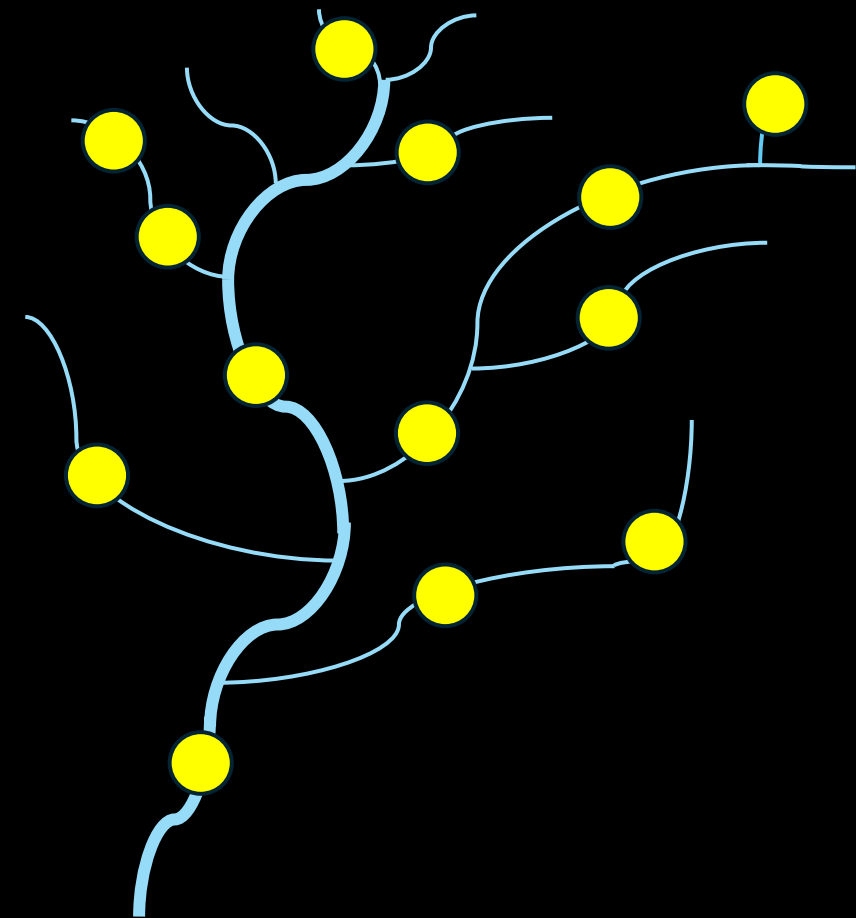
1. Underestimates fragmentation

2. Overestimates barrier removal gains

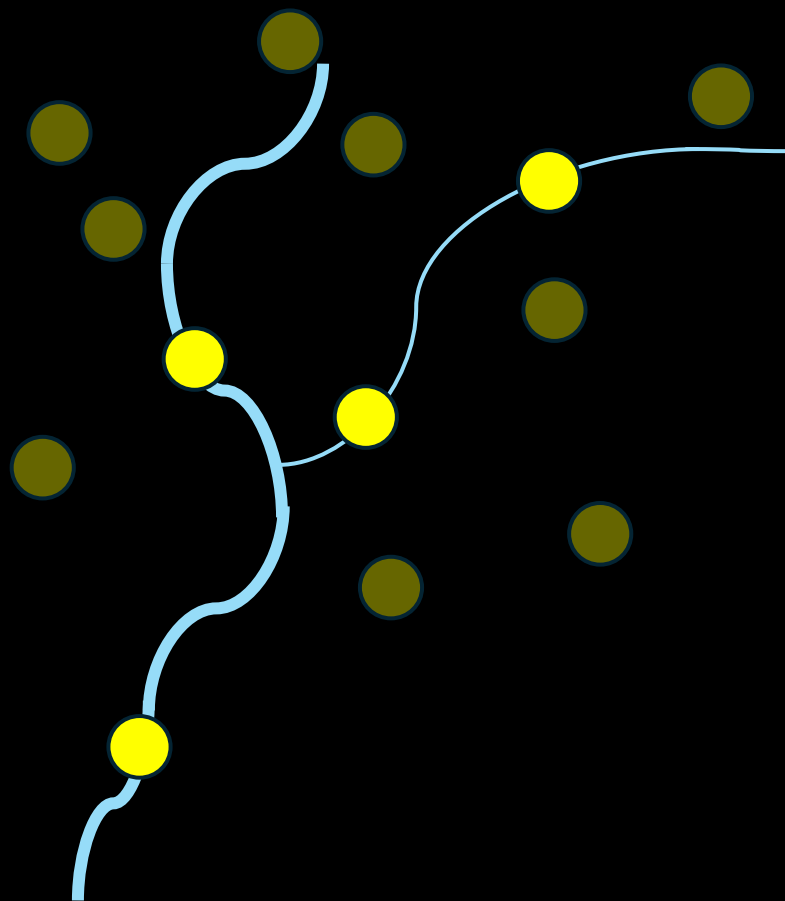
True fragmentation

Coarse barrier inventory

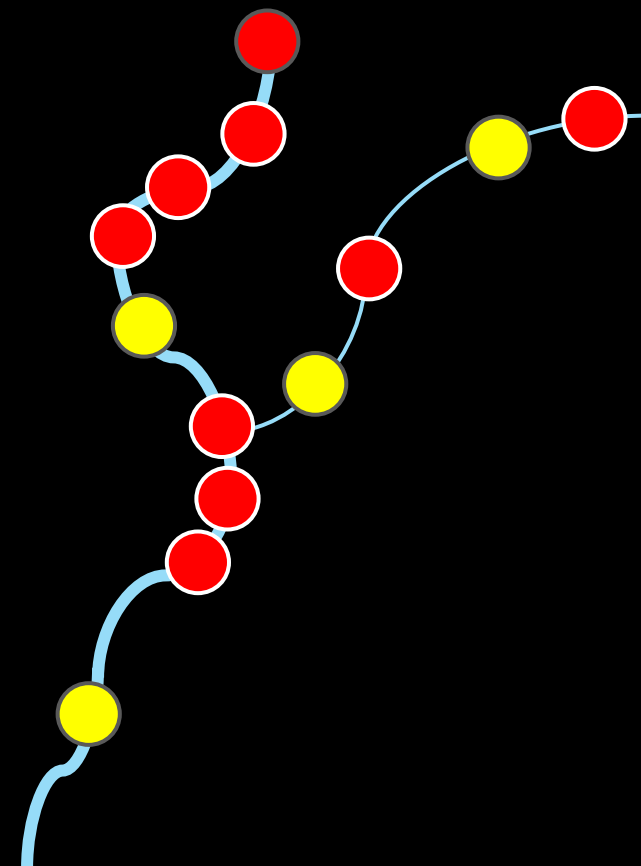
## P2. Coarse river networks



True fragmentation



Coarse river network



Snapping barriers into coarse river networks overestimates fragmentation

1. All barriers fragment .... but some fragment more than others

2. Many small barriers typically fragment more than a few large ones

3. All rivers deserve attention..... but triaging is needed to optimize resources

