

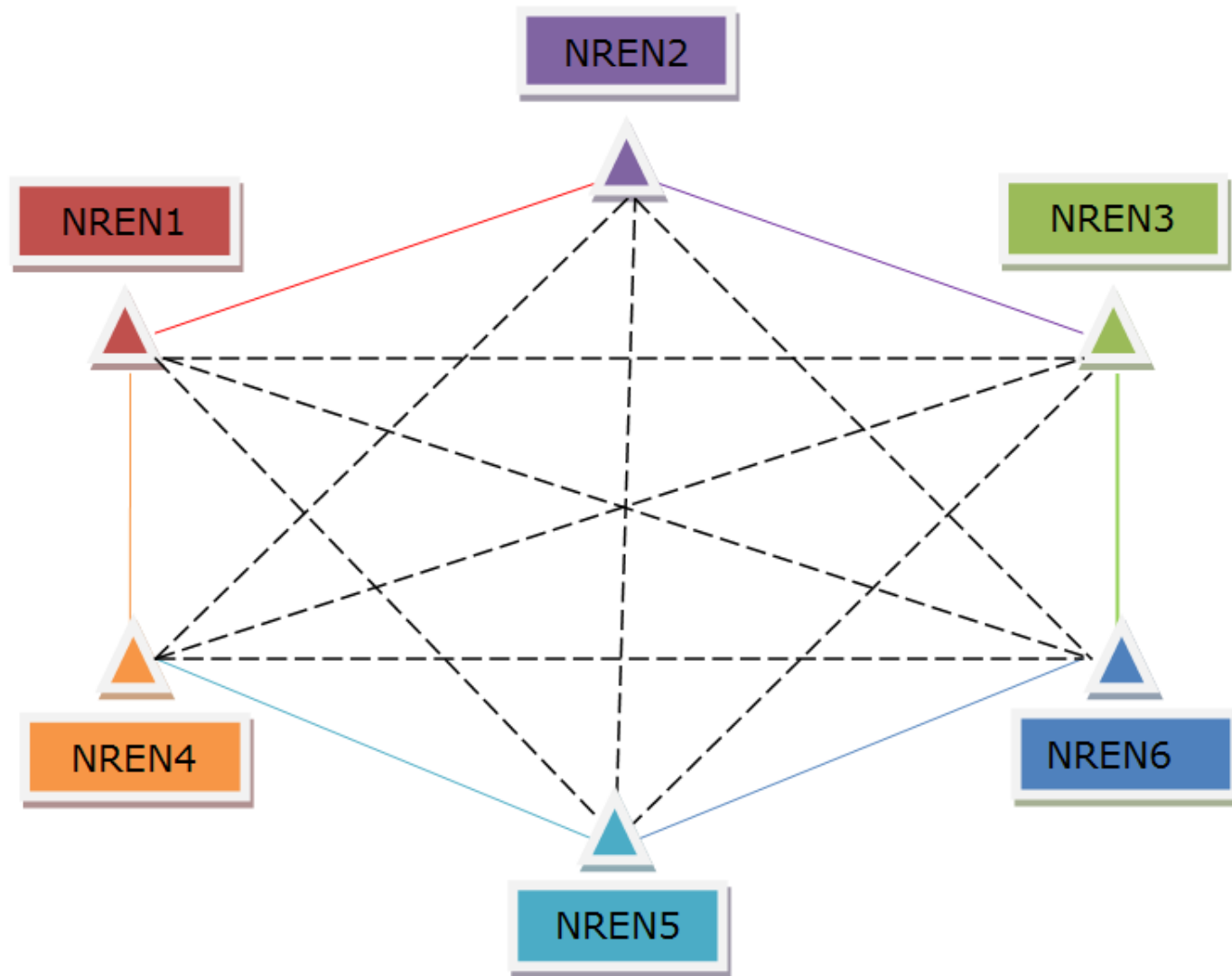
Baltic Ring – Cost sharing

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A quarrel is quickly settled when deserted by one party; there is no battle unless there be two.

Seneca, 4 BC- 65 AD

- Goal setting
- Basic principles
- The cases
- Long-term scenarios
- Financing the cost
- Feasible next steps



Complexity is inherited into subsequent systems



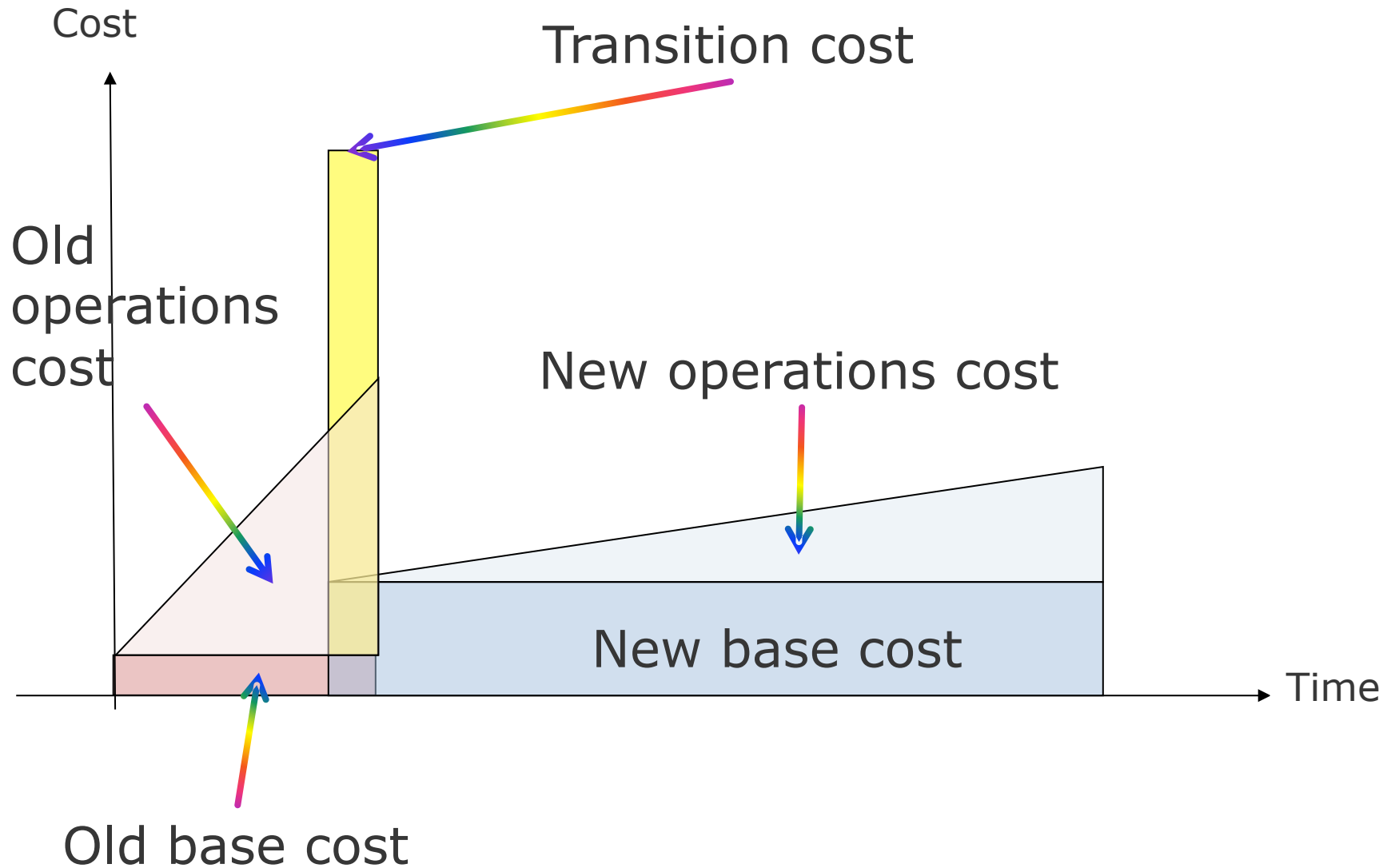


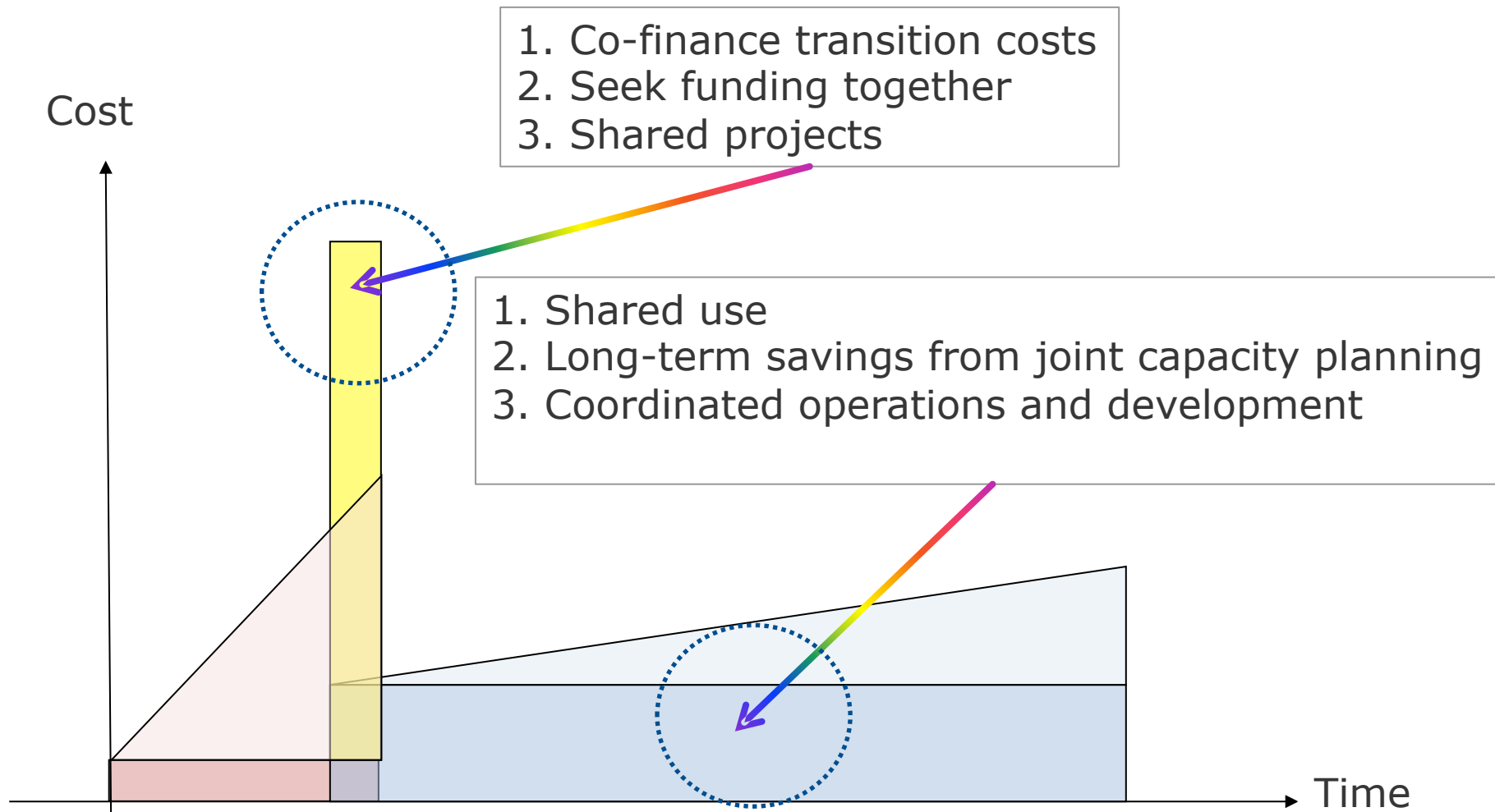
- Baltic Ring Project Goal 7 (G7): Operations cost analysis and suggestions for a cost sharing model

- Cost pricing: no additional costs
- Cost coverage: cause pays
- Agreeing on the costs: NRENs at the endpoints are at the special position



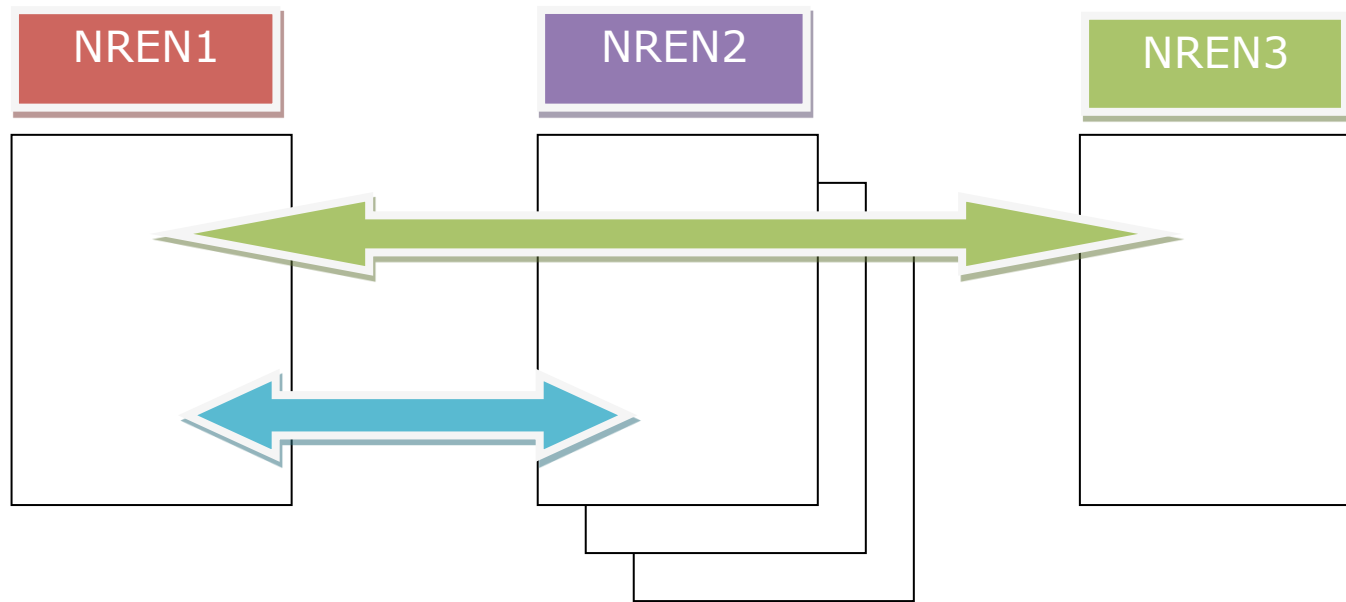
combined cost optimization





Item	Coverage Method	Expected Cost Level	Remark
Initial development	Consortium members, grants	Medium	Man months dominate
Fibre paths and supporting hardware	Consortium members, grants	Medium	Availability has strong influence on financing need
DWDM equipment and supporting software	Consortium members, grants	Medium	Co-tendering may introduce savings
Internal light paths	Projects and parties using service	Low	Users benefit
Collaboration bodies	Consortium members	Low	Defined by scoping
Operations financing	Consortium members	Low	Defined by scoping





Blue arrow case: nearest neighbour
Green arrow case: "man-in-the-middle"

- Two research groups separated by NRENs
 - ✓ Straight-forward to calculate if number of NRENs is ≤ 3
 - ✓ Formulas given
- Financing cross-border fibers
 - ✓ Four (4) different situations identified
 - ✓ Barter trading and swaps in the Ring are effective
 - ✓ Case sensitive problem

1. Case-by-case independent fair financing ("whom it concerns model")
2. Coordinated delayed billing based on actual costs ("centralized billing model")
3. Cost sharing based on non-usage related criteria ("agreement model")

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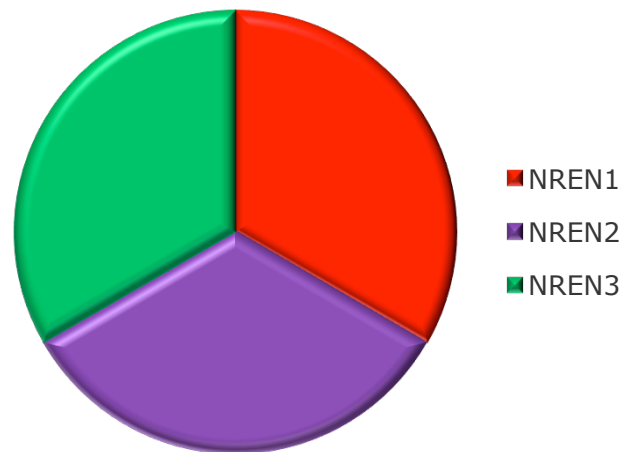
Aspect	Early Stage	Late Stage	Remark
Level of Commitment	Medium	High	Importance is increasing.
Administrative Investment	Low	Low	Shared and well-delegated administration.
Service Portfolio Complexity	Low	Low	Simple solutions are sought.
Speed of Progress	High	Medium	The services are wanted in use rather quickly.
Use Control	Low	Low	Each NREN is responsible for their respective users.



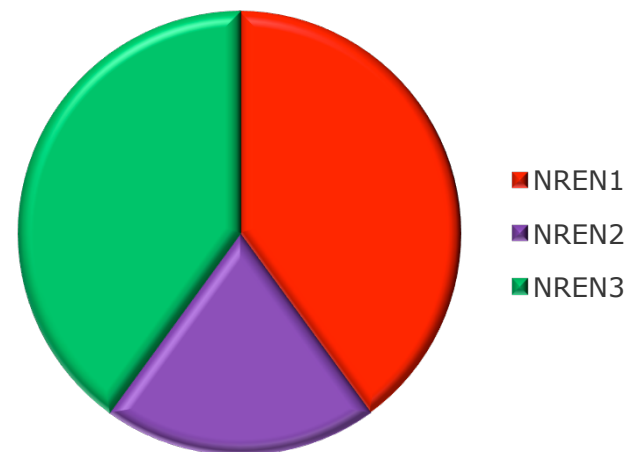
- The consortium partners should exchange tariff information
- Contributions from third parties should be canalized via partners



Scenario 1

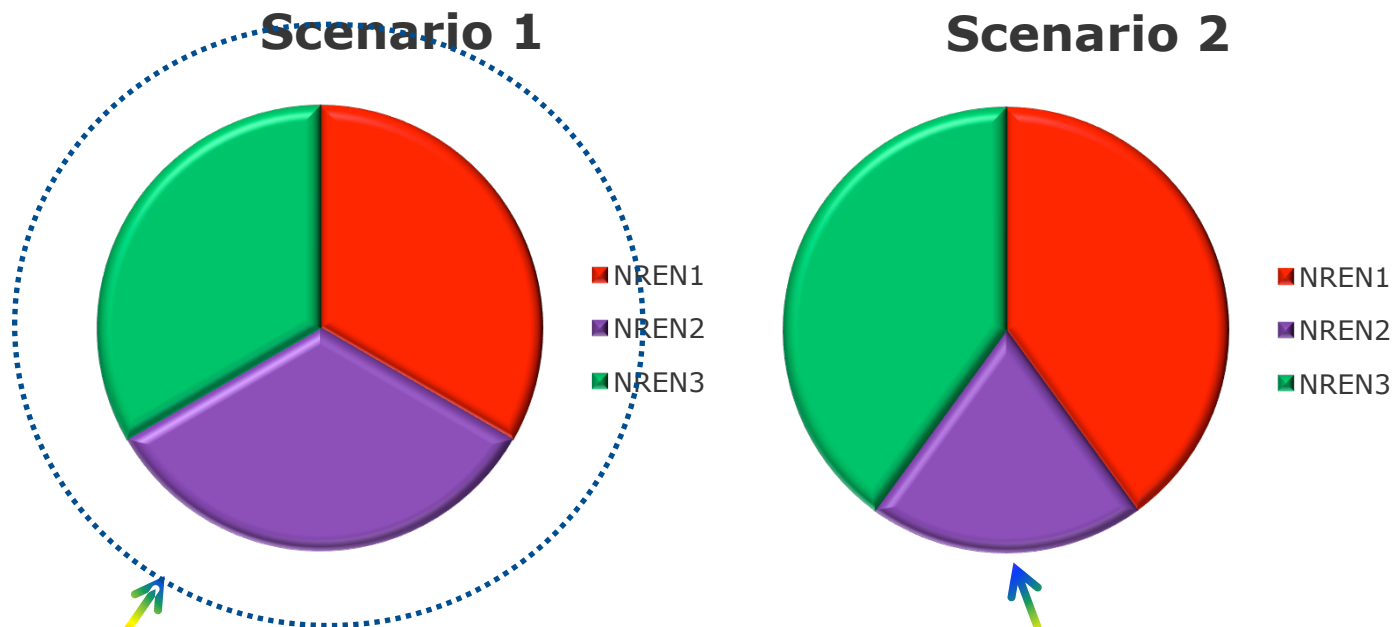


Scenario 2



Scenario 1: balanced use

Scenario 2: simple unbalanced case



Costs may cancel out each other

NREN1 and NREN3 pay for their use to NREN2

- Question the principles?
- What is the level of financing coordination wanted?
- Which alternative to choose from the flexible approaches?
- Searching funding instruments or methods

Questions and comments, please!