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# Scenarios of PRFS and potential effects

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INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ

# Flexible parameters in the funding system



## In the overall funding system

- **Shares of the different funding components**
  - ≈ stability of the institutional funding vs. responsiveness to the performance

## In the PRFS component

- **Weights of the different evaluation criteria**
  - ≈ in line with missions of ROs and with policy objectives
- **Linear or non-linear allocation of funding**
  - ≈ stability, continuity, capacity building vs. dynamics of best-performers, concentration
- **Treatment of RUs (= ROs) with low scores**
  - ≈ learning process (soft treatment) vs. mandatory phasing out (strict treatment)

# Scenarios



- **Flexible parameters => Wide range of combinations => Simulation tool for modelling distributional effects of different scenarios**

		Basic Scheme Distribution to Pots: ScRO: Excellence = 0.1; Performance = 0.5; Soc. Relevance = 0.1; Membership = 0.1; Management = 0.2 RTO: Excellence = 0.05; Performance = 0.5; Soc. Relevance = 0.2; Membership = 0.05; Management = 0.2 PubSL: Excellence = 0; Performance = 0.5; Soc. Relevance = 0.25; Membership = 0.05; Management = 0.2 NatRes: Excellence = 0.05; Performance = 0.5; Soc. Relevance = 0.2; Membership = 0.05; Management = 0.2						Alternative Scheme (a) Distribution to Pots: ScRO: Excellence = 0.2; Performance = 0.3; Soc. Relevance = 0.15; Membership = 0.15; Management = 0.2 RTO: Excellence = 0; Performance = 0.5; Soc. Relevance = 0.2; Membership = 0.1; Management = 0.2 PubSL: Excellence = 0; Performance = 0.5; Soc. Relevance = 0.25; Membership = 0.05; Management = 0.2 NatRes: Excellence = 0; Performance = 0.5; Soc. Relevance = 0.3; Membership = 0; Management = 0.2					
		Institutional Funding Structure Block = 80%, PA = 5%, PRFS = 15%			Institutional Funding Structure Block = 50%, PA = 10%, PRFS = 40%			Institutional Funding Structure Block = 80%, PA = 5%, PRFS = 15%			Institutional Funding Structure Block = 50%, PA = 10%, PRFS = 40%		
		Emphasis on Excellence	Emphasis on Performance	Emphasis on Societal Impact	Emphasis on Excellence	Emphasis on Performance	Emphasis on Societal Impact	Emphasis on Excellence	Emphasis on Performance	Emphasis on Societal Impact	Emphasis on Excellence	Emphasis on Performance	Emphasis on Societal Impact
<b>PRFS Method:</b> PersonScores	Period-1 (2020-2025)	P1EX80B	P1PE80B	P1SO80B	P1EX50B	P1PE50B	P1SO50B	aP1EX80B	aP1PE80B	aP1SO80B	aP1EX50B	aP1PE50B	aP1SO50B
	Period-2 (2025-2030)	P2EX80B	P2PE80B	P2SO80B	P2EX50B	P2PE50B	P2SO50B	aP2EX80B	aP2PE80B	aP2SO80B	aP2EX50B	aP2PE50B	aP2SO50B
	Period-3 (2030-2035)	P3EX80B	P3PE80B	P3SO80B	P3EX50B	P3PE50B	P3SO50B	aP3EX80B	aP3PE80B	aP3SO80B	aP3EX50B	aP3PE50B	aP3SO50B
<b>PRFS Method:</b> Relative Deviation Scores	Period-1 (2020-2025)	B1aP1EX80B	B1aP1PE80B	B1aP1SO80B	B1aP1EX50B	B1aP1PE50B	B1aP1SO50B	B1aaP1EX80B	B1aaP1PE80B	B1aaP1SO80B	B1aaP1EX50B	B1aaP1PE50B	B1aaP1SO50B
	Period-2 (2025-2030)	B1aP2EX80B	B1aP2PE80B	B1aP2SO80B	B1aP2EX50B	B1aP2PE50B	B1aP2SO50B	B1aaP2EX80B	B1aaP2PE80B	B1aaP2SO80B	B1aaP2EX50B	B1aaP2PE50B	B1aaP2SO50B
	Period-3 (2030-2035)	B1aP3EX80B	B1aP3PE80B	B1aP3SO80B	B1aP3EX50B	B1aP3PE50B	B1aP3SO50B	B1aaP3EX80B	B1aaP3PE80B	B1aaP3SO80B	B1aaP3EX50B	B1aaP3PE50B	B1aaP3SO50B
<b>PRFS Method:</b> Mean±SD: within=±5%; outside=±10%	Period-1 (2020-2025)	B2aP1EX80B	B2aP1PE80B	B2aP1SO80B	B2aP1EX50B	B2aP1PE50B	B2aP1SO50B	B2aaP1EX80B	B2aaP1PE80B	B2aaP1SO80B	B2aaP1EX50B	B2aaP1PE50B	B2aaP1SO50B
	Period-2 (2025-2030)	B2aP2EX80B	B2aP2PE80B	B2aP2SO80B	B2aP2EX50B	B2aP2PE50B	B2aP2SO50B	B2aaP2EX80B	B2aaP2PE80B	B2aaP2SO80B	B2aaP2EX50B	B2aaP2PE50B	B2aaP2SO50B
	Period-3 (2030-2035)	B2aP3EX80B	B2aP3PE80B	B2aP3SO80B	B2aP3EX50B	B2aP3PE50B	B2aP3SO50B	B2aaP3EX80B	B2aaP3PE80B	B2aaP3SO80B	B2aaP3EX50B	B2aaP3PE50B	B2aaP3SO50B



# Scenarios of PRFS in detail

- **Shares of the different funding components**
  - Default: Block grant (80%), PRFS (15%), Performance agreement (5%)
- **Weights of the different evaluation criteria**
  - 3 scenarios: default, medium, radical
  - 2 options for transformation of evaluation scores into PRFS
- **Linear or non-linear allocation of funding**
  - Default: linear
- **Treatment of RUs (= ROs) with low scores**
  - Default: soft treatment

# Weights of evaluation criteria for different types of ROs



- **Default sc.:** Increasing overall quality in research organisations

	ScRO	RTO	PubSL	NatRes
Research Excellence	10%	5%	5%	5%
Research Performance	50%	50%	50%	50%
Societal Relevance	10%	20%	20%	20%
Membership in the World Research Community	10%	5%	5%	5%
Management	20%	20%	20%	20%

- **Medium sc.:** Increasing overall quality + emphasising ROs' specificities

	ScRO	RTO	PubSL	NatRes
Research Excellence	20%	5%	5%	5%
Research Performance	50%	50%	40%	40%
Societal Relevance	5%	20%	30%	30%
Membership in the World Research Community	10%	5%	5%	5%
Management	15%	20%	20%	20%

- **Radical sc.:** Pushing research excellence and societal relevance

	ScRO	RTO	PubSL	NatRes
Research Excellence	70%	5%	0%	0%
Research Performance	10%	10%	15%	15%
Societal Relevance	5%	70%	70%	70%
Membership in the World Research Community	5%	5%	5%	5%
Management	10%	10%	10%	10%

# Options for translating evaluation scores into funding (1)



- **Option 1 – allocation based on person scores**
  - Each of 4 PRFS pots (for different types of ROs) is divided into 5 sub-pots (based on evaluation criteria)
  - The sub-pot is divided among RUs based on the scores they got in the specific criteria normalized by the number of FTE researchers
- **Pros:**
  - Simplicity
  - Takes into account size of RUs
- **Cons:**
  - Requires reliable data on FTE researchers in terms of uniform definition and reporting of FTE researchers
  - Risk of gaming (multiple contracts, research vs. teaching time)

# Options for translating evaluation scores into funding (2)



- **Option 2 – allocation based on relative scores**
  - Each of 4 PRFS pots (for different types of ROs) is divided into 5 sub-pots (based on evaluation criteria)
  - Average score weighted by the number of FTE researchers is calculated for each criteria and type of organisation (i.e. for each sub-pot)
  - Departure of RU's score from the average score drives the change in the funding that the RU gets from the particular sub-pot
- **Pros:**
  - Number of FTE researchers does not enter directly the formula for calculation of funding – this eliminates the risk of gaming
- **Cons:**
  - Requires additional policy decision about the rates of increase, decrease or no change (in relation to departure of individual scores from average)
  - Does not take into account change in size of RUs between two periods



# Modelling distributional effects

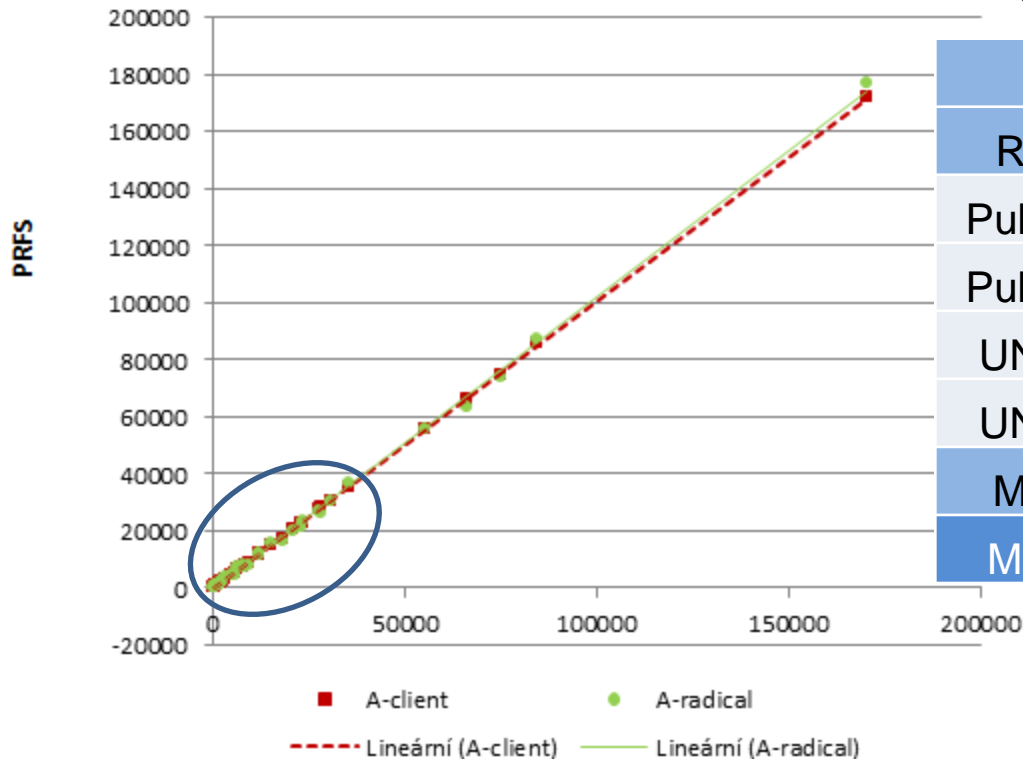
- **Assumption about evaluation results**
  - The only information we have is the current system of evaluation (RIV points)
  - For the purpose of simulation the evaluation results (scores) are derived from the RIV points
- **Simulation of distributional effects related to different weights of evaluation criteria**
  - Using person scores for transformation scores into PRFS (Option 1)
  - Using relative scores for transformation scores into PRFS (Option 2)



# Effects of different weights – Option 1 (person scores)



Compared to default scenario

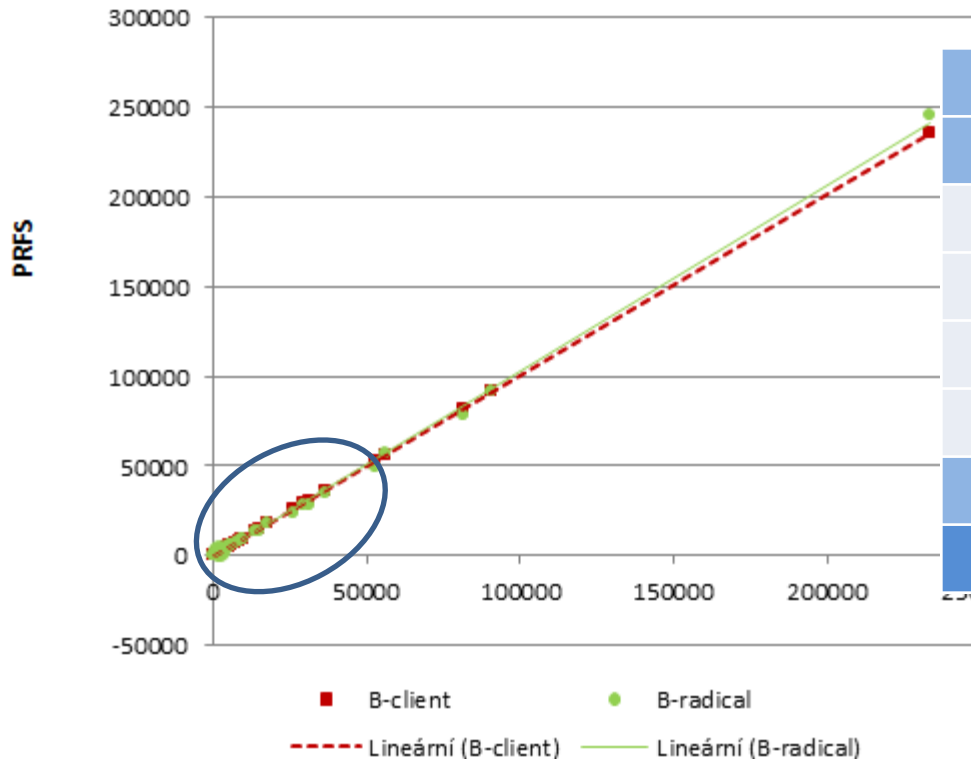


	Period 1		Period 3	
RO	Medium	Radical	Medium	Radical
PubL1	4%	20%	0%	-2%
PubL2	-3%	-12%	0%	-2%
UNI1	1%	4%	0%	-1%
UNI2	1%	0%	0%	2%
Min	-5%	-12%	-1%	-18%
Max	4%	20%	3%	9%

# Effects of different weights – Option 2 (relative scores)



Compared to default scenario



PRFS - scenario: B - basic

	Period 1		Period 3	
RO	Medium	Radical	Medium	Radical
PubL1	6%	29%	1%	0%
PubL2	-1%	-5%	0%	-1%
UNI1	1%	6%	0%	-1%
UNI2	1%	3%	0%	2%
Min	-7%	-11%	-1%	-9%
Max	6%	29%	3%	13%



# Conclusions

- **Differences in weights of evaluation criteria have some but not significant distributional effect on the PRFS component of institutional funding**
  - It holds true especially for larger ROs
  - Smaller ROs can experience bigger changes in the PRFS component in relation to different weights of evaluation criteria
- **The weights of evaluation criteria can help steer the behaviour of ROs without destabilizing the institutional funding system**

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