

**Use of expert methods in
decision-making with
serious implications in
public policies**



Initial stage

assistance with the strategy preparation – former experience

Partnership Agreement - new programming period 2021 – 2027,
€13.4b from EU sources

4 policy objectives:

- research and innovation;
- environment and energy;
- mobility (transport) and connectivity (ICT) and
- social issues.



Initial stage

- broad participation of key policy stakeholders in drafting PA priorities
- identification of major development challenges - the most appropriate measures by the Slovak stakeholders
- matching and harmonising Slovakia's development challenges and policy priorities of the European Commission - Country Report Slovakia 2019, incl. Investment Guidance on Cohesion Policy Funding 2021-2027 for Slovakia (Annex D)



Methods

Bottom-up and top-down approach

- all key stakeholders – partnership
- dialogue with the central government ministries (matching, drafting policy measures)

Delphi method

- ✓ identify major development **challenges** and
- ✓ create a list of prospective policy **measures** to address the challenges

Analytic Hierarchy Process (AHP)

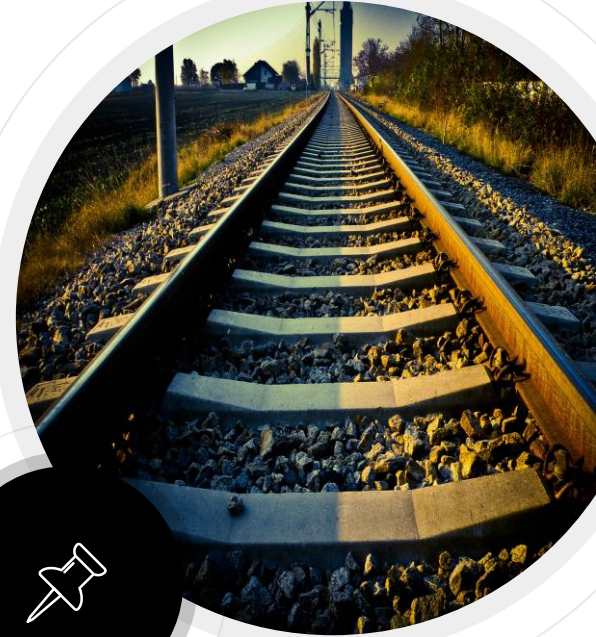
- ✓ to rank prospective policy **measures** - set of qualitative criteria



Delphi

- principles: anonymous, individual opinions, consensus
- two-step Delphi technique:
- collecting individual expert judgements on anonymous basis (generate policy challenges and measures) members of the expert panel express their opinions anonymously in initial stages
 - **Policy Delphi** - consolidation of policy measures on the collective workshops

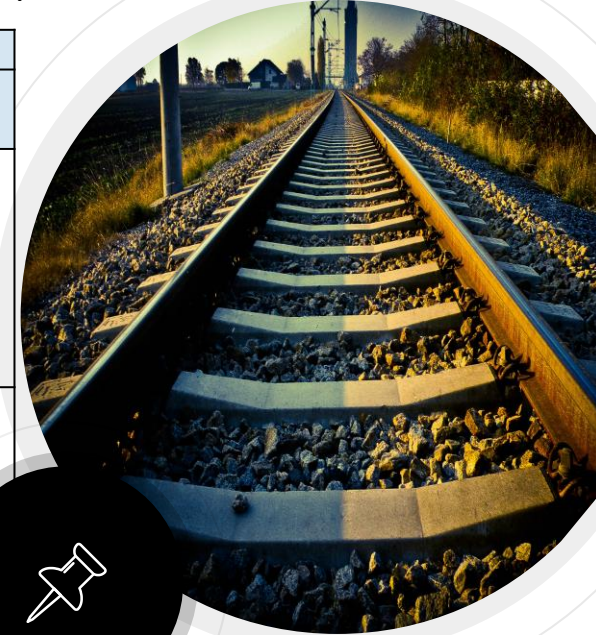
	Public sector	Economic and social partners	NGOs	Total
Invited	204	95	28	327
Responded	105	28	16	150



Delphi

1. online software tool: ranked on scale 1 to 3, 1 - the top challenge / measure

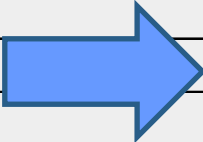
Development challenges identified by participants	Activities/measures proposed		
	1st priority	2nd priority	3rd priority
1. Insufficient integration of vulnerable and disadvantaged groups in the labour market	Support and development of social economy and social enterprises	Reduction of long-term unemployment of disadvantaged and vulnerable groups	Support of flexible form of employment
2. High unemployment of disadvantaged and vulnerable groups	Support to link education system and the labour market	Development of regions with the highest long-term unemployment	Introduction of professional counselling/guidance
3. Long-term unemployment of young, low-skilled people	Addressing the lifelong learning system	Introduction of tutoring at work	Support of requalification



AHP: Policy measures aggregating and drafting proposals

2. proposals of measures: structure – rational, target group and impact, activities
3. meeting - aggregation of 239 measures – 46 aggregated measures subject to AHP

Policy Objective	Policy measure proposals	Aggregated proposals
1	$22+8+4+11=45$	$4+4+3+4=15$
2	$22+13+19+26=80$	$3+4+5+2=13$
3	$6+11+3=20$	$4+4+1=9$
4	$10+16+49=77$	$2+3+4=9$
5	17	
Total	239	46

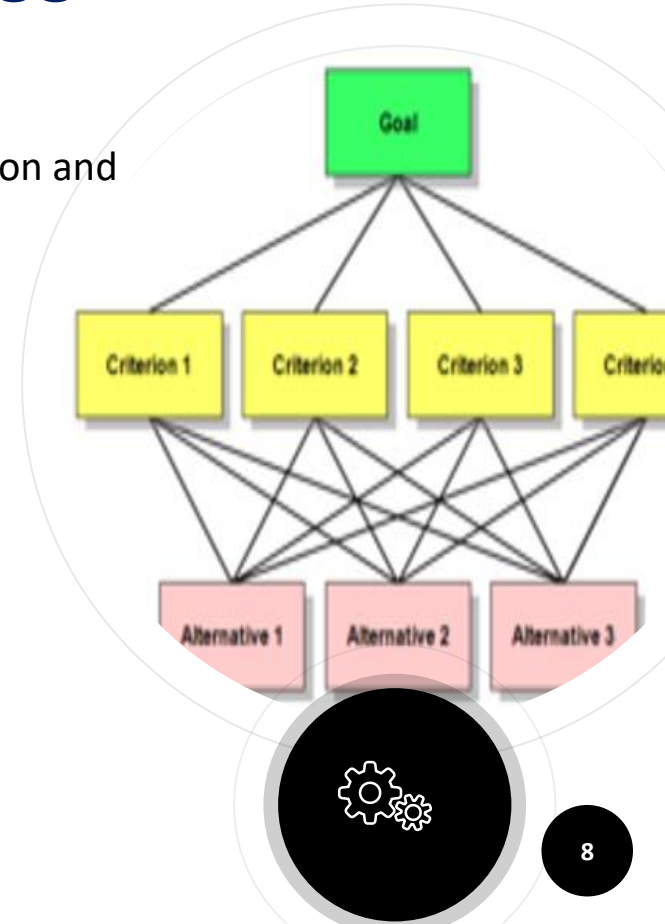


AHP- Analytic Hierarchy Process

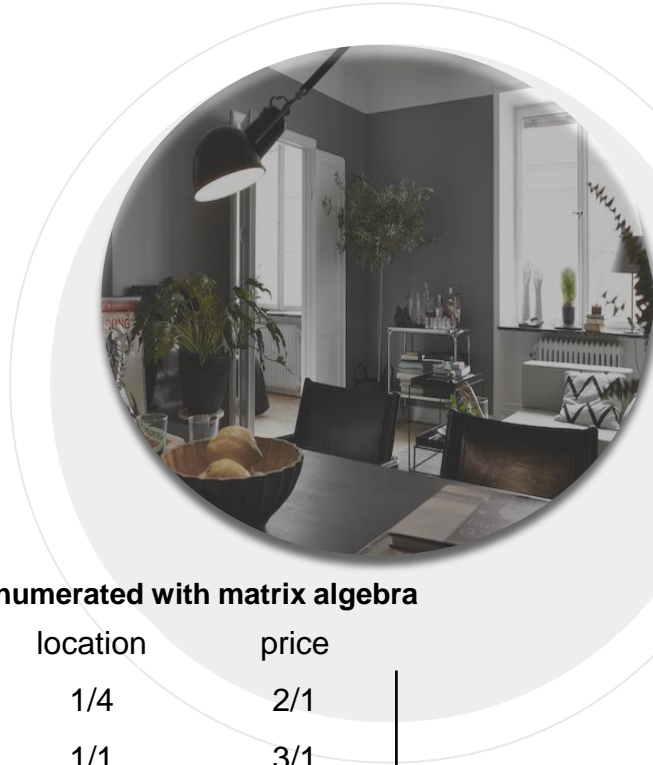
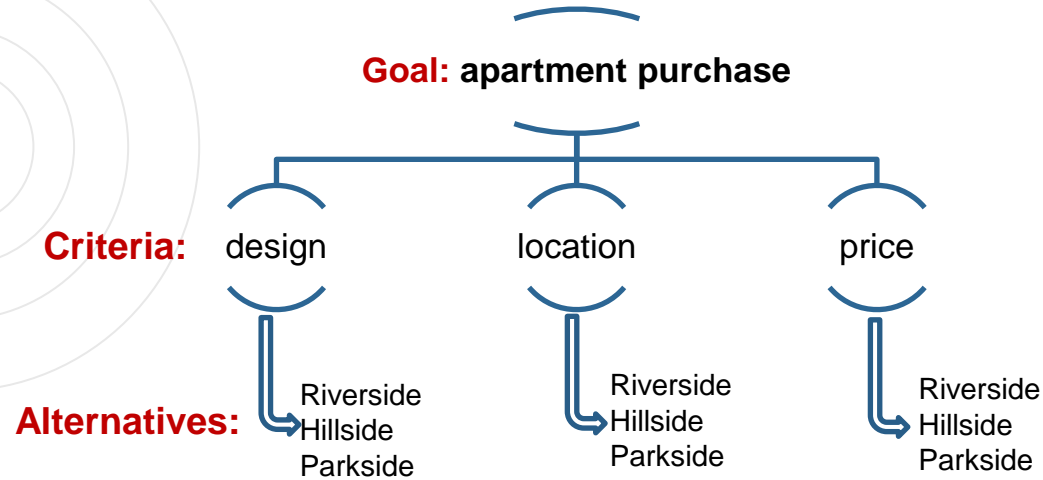
Multi-criteria decision-making method applied in business decision and policy making
considerations of both quantitative and qualitative factors
pairwise comparison

Examples of applications:

- Select a type of nuclear reactors
- Deciding where to locate offshore manufacturing plants
- EU funded interventions



AHP example: purchase of an apartment



Three **criteria**: design, location and price.

set **decision weights** :
 location is 4 times as important as design
 location is 3 times as important as price
 price is twice as important as design



Decision matrix is built and enumerated with matrix algebra

	design	location	price
design	1/1	1/4	2/1
location	4/1	1/1	3/1
price	1/2	1/3	1/1

AHP – expert pool

Policy objective	Government	Academia	NGO	Business	Other	Total
1	13	6	0	3	2	24
2	12	2	1	2	0	17
3	8	2	1	2	0	13
4	15	2	0	0	0	17
Total	48	12	2	7	2	71

- government – analytical units of the ministries and Government Office, Institute of Financial Policy, Value for Money
- academia - Institute of Strategic Analyses , universities, research institutes
- NGO - think tanks
- business - Chamber of Commerce, employers associations
- other - National Bank of Slovakia



AHP criteria for pairwise comparison

Three criteria were selected :

Relevance
Urgency
Feasibility

Relevance

The policy measure is highly relevant and significant for the further social, economic and environmental development of Slovakia. The policy measure is important for coping with societal challenges in next decade.

AHP criteria for pairwise comparisons

Urgency

The policy measure must be implemented as soon as possible. The policy measure is also a precondition for implementing next-stage policies

Feasibility

Some economic, social and environmental challenges are extremely important for future development of Slovakia (population ageing, climate change), but the Slovak government has limited capacity to address them. Some other challenges fell in scope of the government intervention, but the government did not implement the policy measures properly in past.

Prioritisation

Consistency of judgements indicates quality of judgment

- if alternative $A > B$, and $B > C$, then $A > C$
- some level of inconsistency is acceptable
- degree of consistency - Consistency Ratio (CR) ≤ 0.1

- aggregation of individual judgements (AIJ) for each entry of the pairwise comparison matrices
- aggregation of individual priorities – weighted geometric mean



Measures	Relevance	Urgency	Feasibility	Total
4.1 Improving access to quality employment of all jobseekers, enhancing effectiveness of labour market institutions				
Consistency ratio: n.a.				
4.1.1 Improving access to employment and modernising institutions and services on labour market	0.68	0.71	0.49	0.64
4.1.2 Supporting a better work-life balance	0.32	0.29	0.51	0.36
4.2 Promoting equal access to quality and inclusive education, training and life-long learning				
Consistency ratio: 0.062				
4.2.1 Improving the quality and effectiveness of education and training systems	0.25	0.25	0.24	0.26
4.2.2 Equal access to quality and inclusive education	0.47	0.49	0.41	0.46
4.2.3 Support to life-long learning – adaptability of human resources to the skills of the 21 st century	0.28	0.26	0.35	0.28
4.3 Enhancing equal and timely access to quality, sustainable and affordable social and health services				
Consistency ratio: 0.033				
4.3.1 Supporting active inclusion with the aim to promote equal opportunities and active participation	0.15	0.16	0.21	0.17
4.3.2 Supporting social and economic integration of marginalised Roma communities	0.33	0.30	0.24	0.30
4.3.3 Ensuring equal access to healthcare including primary care	0.30	0.30	0.27	0.28
4.3.4 Promotion of social integration of people at-risk-of-poverty or threatened by social exclusion ...	0.22	0.23	0.28	0.24

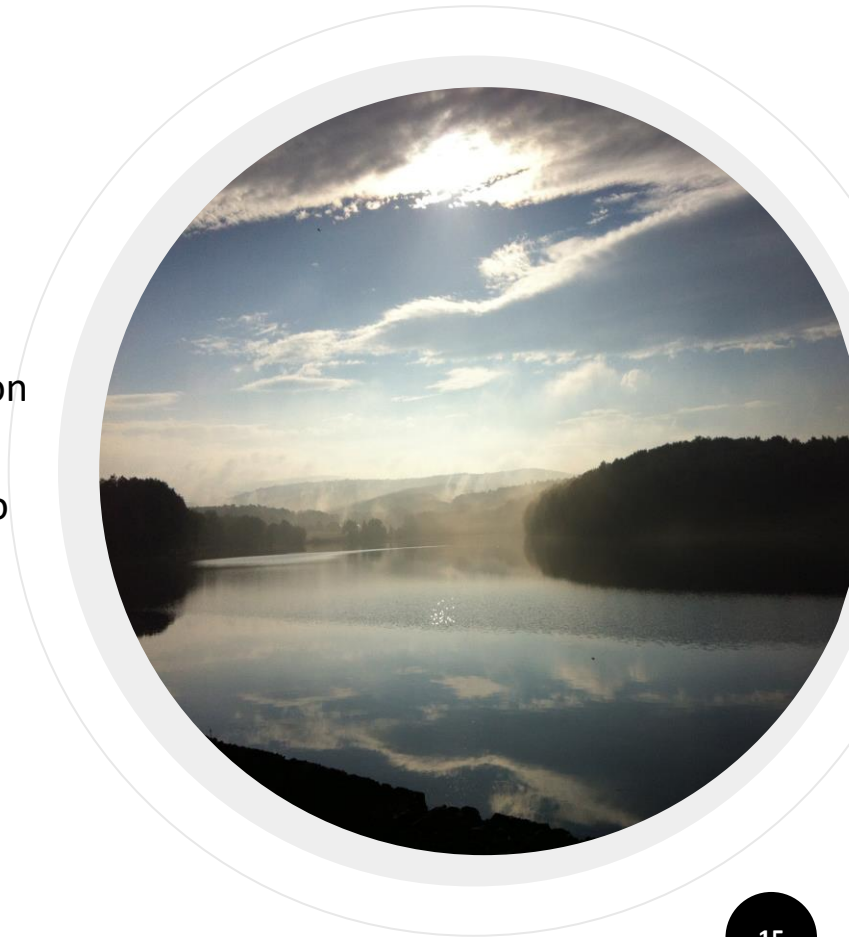
Conclusions

Choice of decision methods - purpose of the policy exercise, type of policy intervention and information available

- PA - very diverse fields of policy intervention, e.g. objective 4: social care, health care, social exclusion of marginalised communities, education
- Complex social topics - diverse specialities, not too specialised experts, understand interconnections

Mitigation of inconsistency risk:

- expert selection
- excluding experts with high inconsistency levels





Thank you

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