

Workshop on Electoral System Design

Chişinău – April 7, 2017

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1. Introduction to electoral system design
2. Majoritarian systems
3. Proportional systems
4. Comparing systems
5. Mixed systems
6. Criteria for choosing electoral system
7. What is the BEST electoral system for Moldova..?
8. Electoral system reform

Session 1

INTRODUCTION TO ELECTORAL SYSTEM DESIGN

Definition – what is an electoral system?

Bogdanor 1983

Electoral systems are the practical instruments through which notions such as consent and representation are translated into reality...

IDEA 2009

That part of the electoral law and regulations which determines how parties and candidates are elected to a body as representatives.

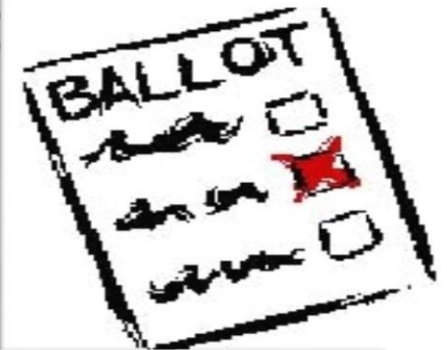
*...an electoral system translates
the votes cast in into seats won in an election*

1 ELECTORAL FORMULA

$$\begin{aligned} \varphi_{j,0} &= (\uparrow 2^{j-1}) \tilde{h}_j * ((\uparrow 2^{j-2}) \tilde{h}_{j-1} * (\dots * ((\uparrow 2) \tilde{h}_2 * \tilde{h}_1) \dots)) \\ &= (\dots * ((\tilde{h}_1 * (\uparrow 2) \tilde{h}_2) * (\uparrow 2^2) \tilde{h}_3) * \dots) * (\uparrow 2^{j-1}) \tilde{h}_j \\ \tilde{\varphi}_{j,0} &= \tilde{h}_1 * ((\uparrow 2) \tilde{h}_2 * (\dots * ((\uparrow 2^{j-2}) \tilde{h}_{j-1} * (\uparrow 2^{j-1}) \tilde{h}_j) \dots)) \\ &= (\dots * ((\tilde{h}_1 * (\uparrow 2) \tilde{h}_2) * (\uparrow 2^2) \tilde{h}_3) * \dots) * (\uparrow 2^{j-1}) \tilde{h}_j \end{aligned}$$

$$\begin{aligned} \psi_{j,0} &= (\uparrow 2^{j-1}) g_j * ((\uparrow 2^{j-2}) h_{j-1} * (\dots * ((\uparrow 2) h_2 * h_1) \dots)) \\ &= (\dots * ((h_1 * (\uparrow 2) h_2) * (\uparrow 2^2) h_3) * \dots) * (\uparrow 2^{j-1}) g_j \\ \tilde{\psi}_{j,0} &= \tilde{h}_1 * ((\uparrow 2) \tilde{h}_2 * (\dots * ((\uparrow 2^{j-2}) \tilde{h}_{j-1} * (\uparrow 2^{j-1}) \tilde{g}_j) \dots)) \\ &= (\dots * ((\tilde{h}_1 * (\uparrow 2) \tilde{h}_2) * (\uparrow 2^2) \tilde{h}_3) * \dots) * (\uparrow 2^{j-1}) \tilde{g}_j \end{aligned}$$

2 BALLOT STRUCTURE



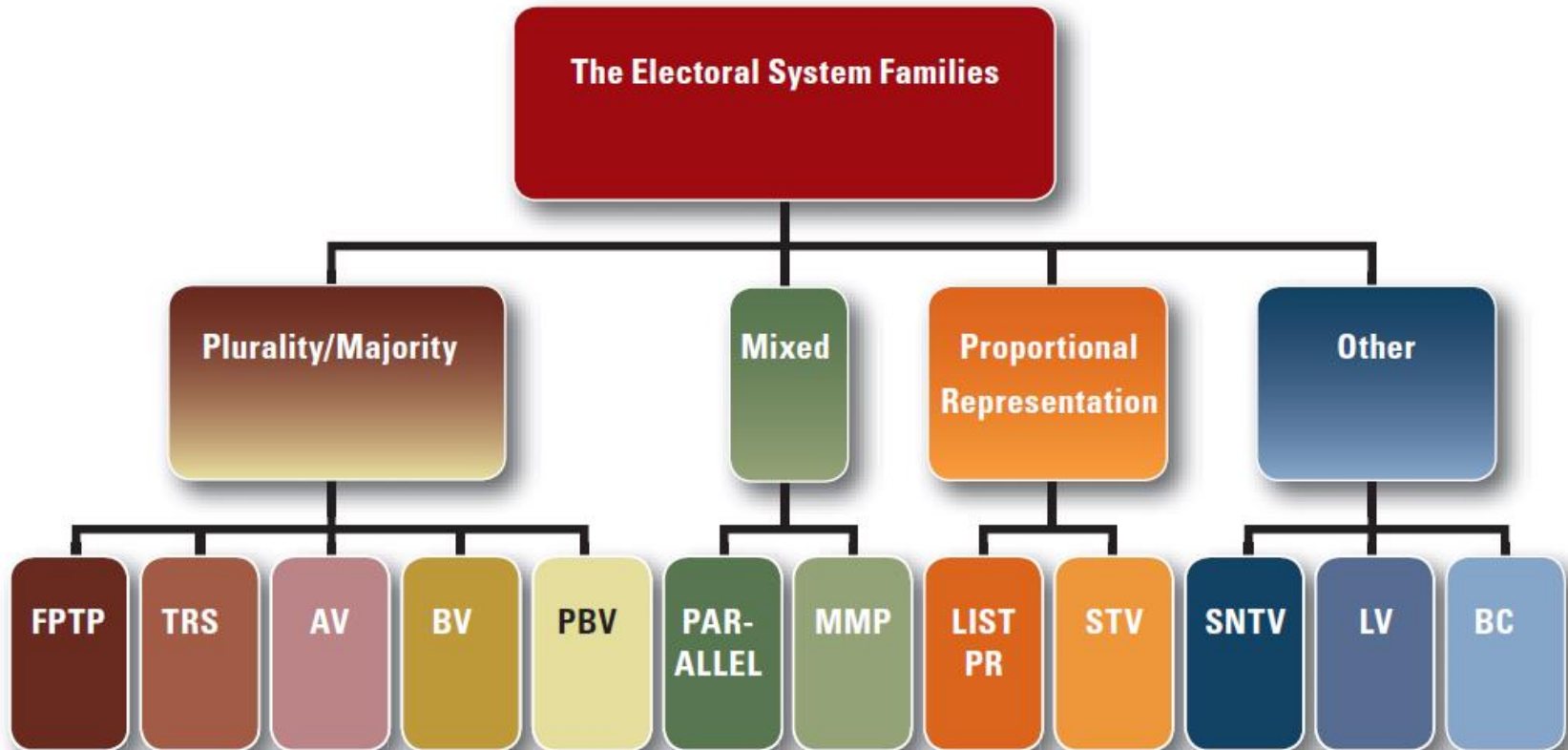
3 DISTRICT MAGNITUDE



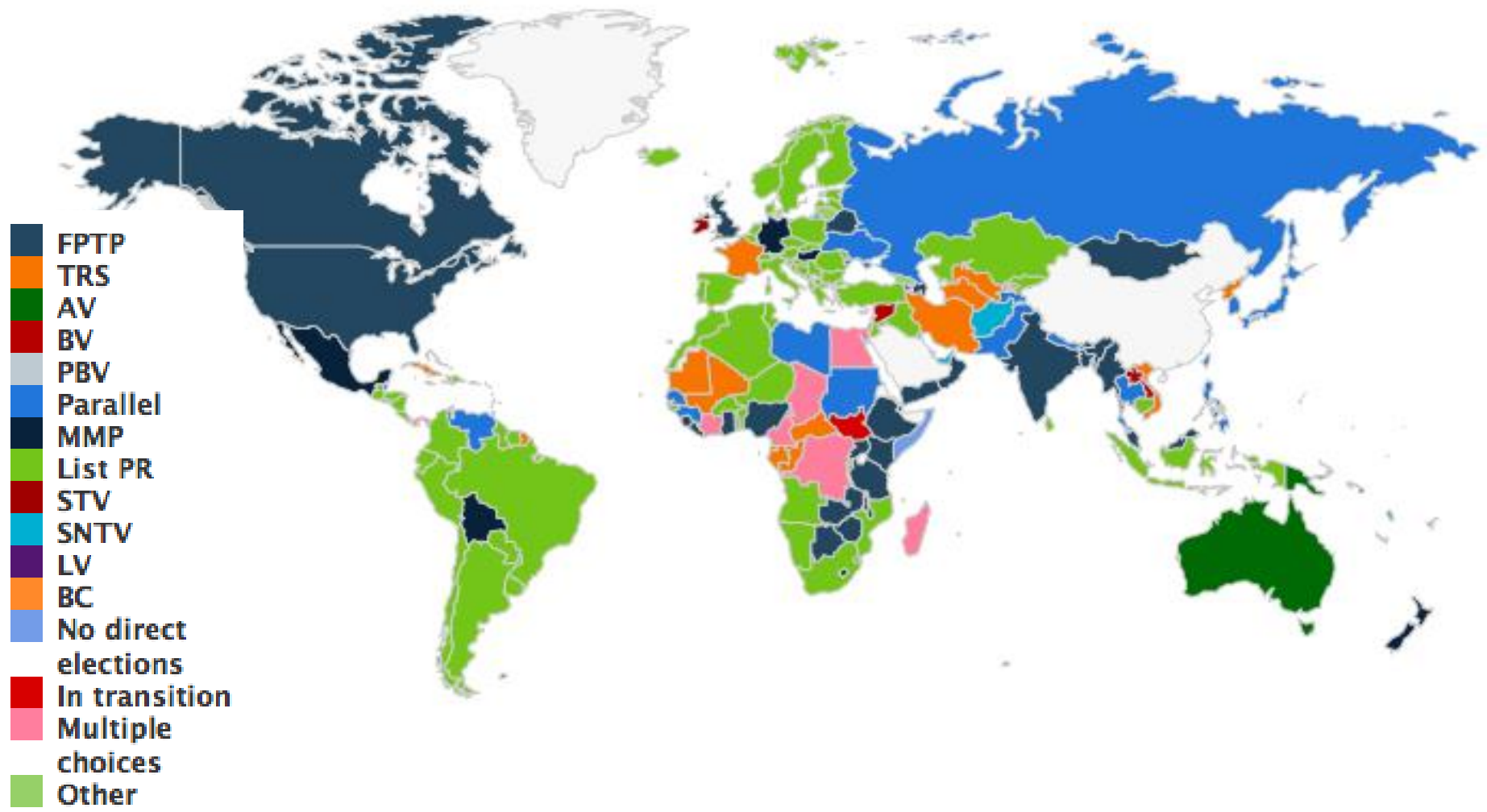
Why is electoral system so important?

In translating the votes cast in a general election into seats in the legislature, the choice of electoral system can effectively determine who is elected and which party gains power.

Electoral systems represent perhaps the most powerful instrument available for institutional engineering, with far-reaching consequences for party systems, the composition of legislatures, and the durability of democratic arrangements

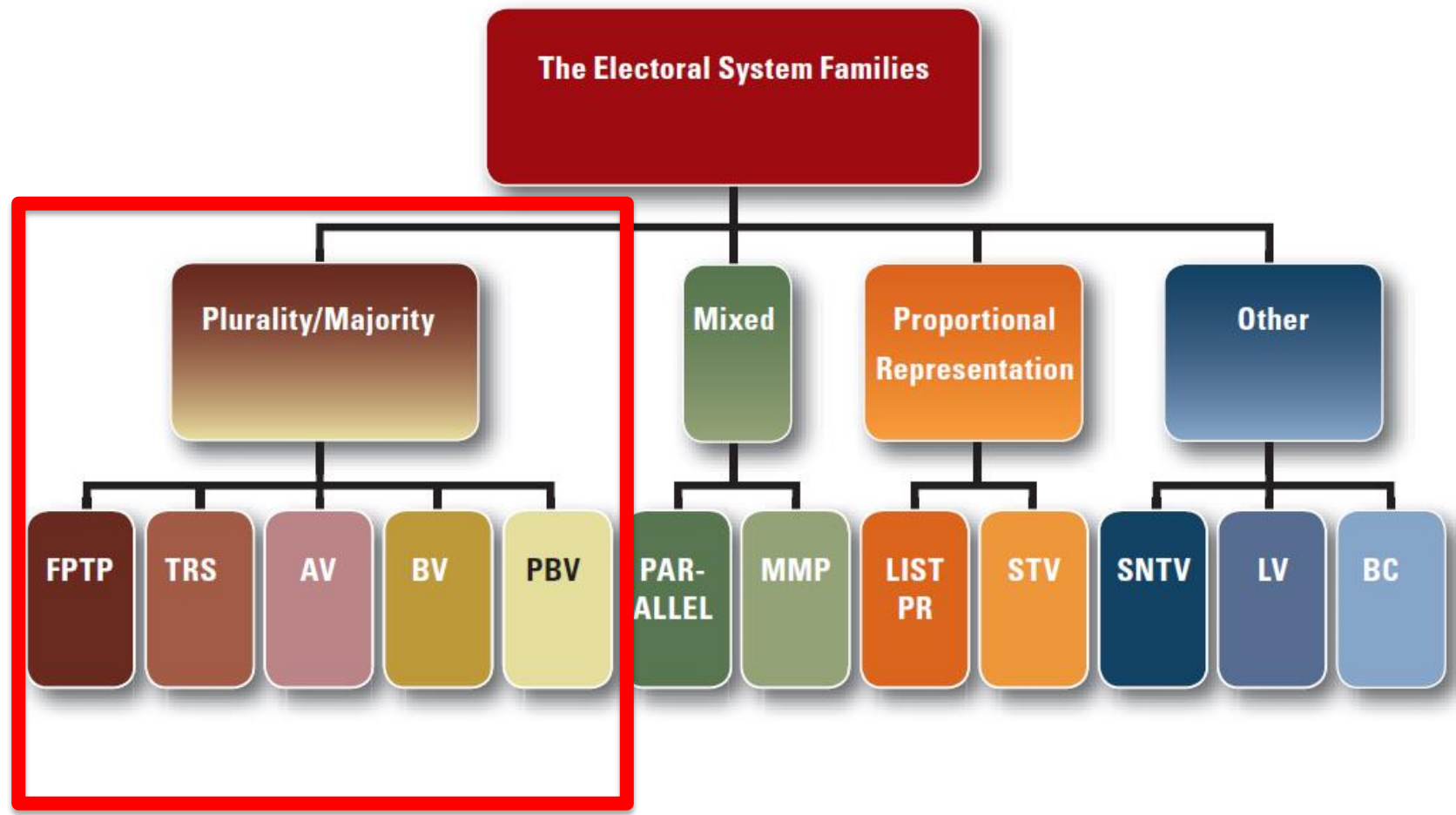


Electoral System for National Legislature Electoral System Design Database



Session 2

MAJORITARIAN SYSTEMS



“Majority” - indicates the method by which in a constituency, either a candidate or a list of candidates that has got the most many votes, with or without majority absolute, is declared the winner.

They can be:

- Simple Majority Systems – the winner has got the highest number of votes but there's no need for more than 50% of votes.
- Absolute Majority Systems – a candidate (or a list) needs at least 50%+1 of votes in order to win.

The Simple Majority System is also known as “First Past The Post” (inspired from horse races).

Example:

Let’s say there are 100 votes

- Candidate A – 30 votes
- Candidate B – 45 votes – the winner
- Candidate C – 25 votes

It is used in Great Britain (not in N. Ireland), USA, Canada and other countries the used to be British colonies such as Ghana, India, Kenya, etc.

The Absolute Majority System

Example:

Let's say there are 100 votes

- Candidate A – 30 votes
- Candidate B – 45 votes
- Candidate C – 25 votes

Nobody wins, so a second round is organized for the first two ones in the first round (or for those who achieved a certain percentage in the first round, as it is in France).

- Candidate A – 52 votes – the winner
- Candidate B – 48 votes

They can also be:

- In single member constituencies
- In multi-member constituencies:
 - Individual candidacies; every voter has got as many votes as many seats there are (the “Block Vote”);
 - Party lists; every voter has one vote for one party list; the list that has the most many votes takes all seats.

The one in a single member constituency can also be:

- One voter - one candidate voted
- One voter – two (or more) candidates voted by ranking them on the ballot. This is called also “The Alternative Vote”.

The Alternative Vote – avoids a second round for deciding the winner.

It's also known as „Ranked Choice Voting“.

Each voter has one vote, but rather than an „X“, they put a „1“ by their first choice a „2“ by their second choice, and so on.

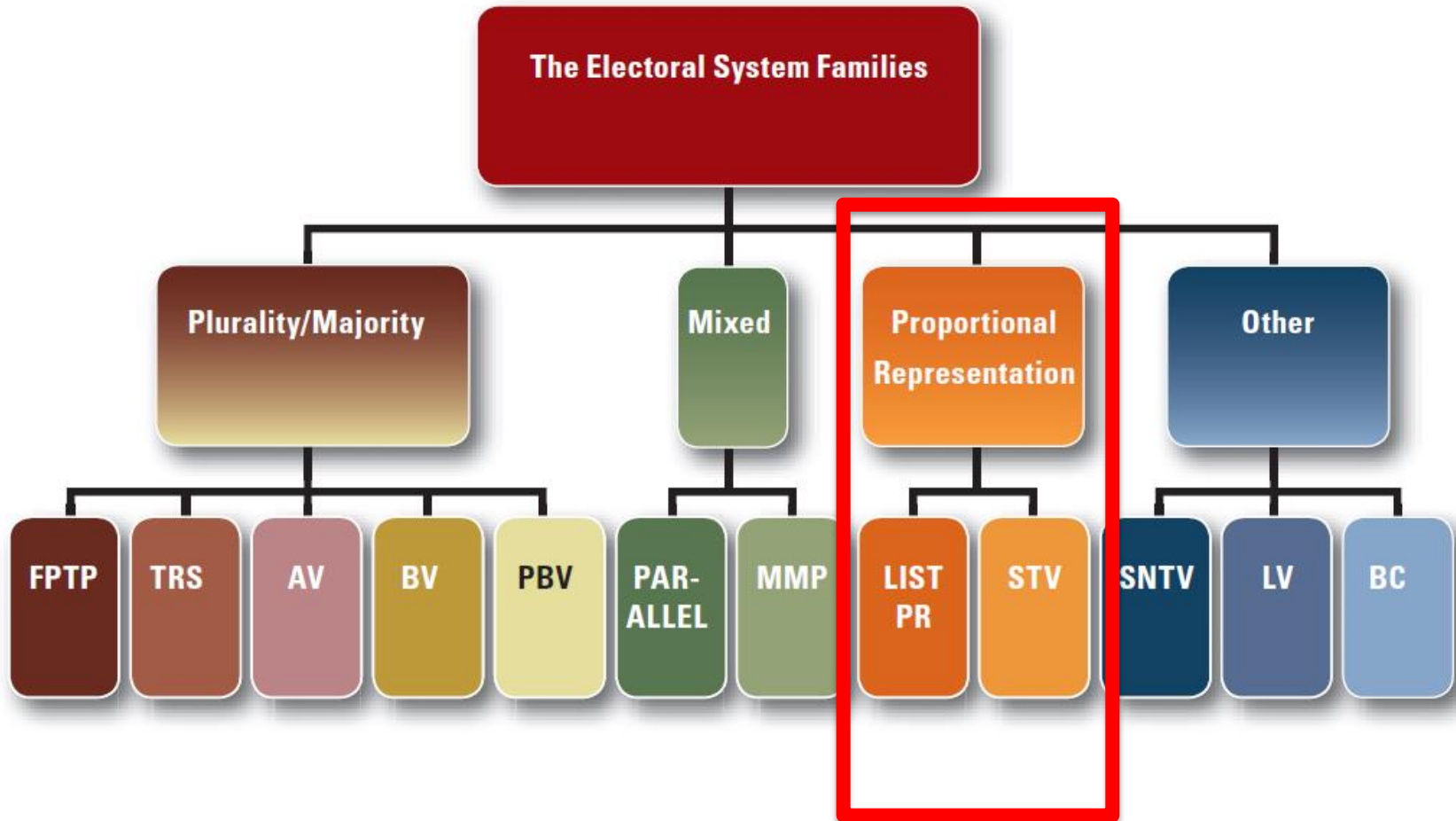
Candidates are elected outright if they gain more than half the votes as first preferences.

If not, the candidate who lost (the one with least first preferences) is eliminated and their votes move to the second preference marked on the ballot papers.

This process continues until one candidate has half of the votes and is elected.

Session 3

PROPORTIONAL REPRESENTATION



Formula

→ Proportional

District magnitude

→ Multimember districts

Ballot structure

→ Party-centred (*)

→ # of ballots: 1

Under List PR, each party presenting a **list of candidates** to the electorate in each **multi-member electoral district**. Voters vote for a **party**, and parties receive seats in **proportion** to their overall share of the vote in the electoral district. Winning candidates are taken from the lists in **order of their position** on the lists.

Formula

→ Proportional

Largest Average

Highest Remainder

District magnitude

→ Multimember

Small

Medium

Large

Ballot structure

→ Party-centred

→ # of ballots: 1

Closed list

Open list

Voluntary

Mandatory

Romania



South Africa











BALLOT PAPER

SAMPLE ONLY

Place your mark next to the party you choose.
 Etsa leshwa pela mabalo e na e e kgotsheng.
 Yena ughwisa kwantle kwelobomo lefihlatsheko.
 Enda mofungo ehlwa ka vanto lezi o e khawatsela.
 Bona leshwa go lebagane le leleko la gago.
 Yena ughwisa iatho edira netlengano ophethelako.

Place a mark large die party you choose.
 Dira leshwa le gago go lebara le phatle yeno o e kgotsheng.
 Kha vha die leswaga phatle ha diagane lezi vha khathela.
 Yena ughwisa lekhato scotale lewaga vho utshelohayo.
 Dvwa ughwisa adithatani abodvwa kwantlengano ophethelako.

PAN AFRICANIST CONGRESS OF AZANIA		PAC		
SPORTS ORGANISATION FOR COLLECTIVE CONTRIBUTIONS AND EQUAL RIGHTS		SOCCER		
THE KEEP IT STRAIGHT AND SIMPLE PARTY		KISS		
VRYHEIDFRONT - FREEDOM FRONT		VF-FF		
WOMEN'S RIGHTS PEACE PARTY		WRPP		
WORKERS' LIST PARTY		WLP		
XIMOKO PROGRESSIVE PARTY		XPP		
AFRICA MUSLIM PARTY		AMP		
AFRICAN CHRISTIAN DEMOCRATIC PARTY		ACDP		
AFRICAN DEMOCRATIC MOVEMENT		ADM		
AFRICAN MODERATES CONGRESS PARTY		AMCP		
AFRICAN NATIONAL CONGRESS		ANC		
DEMOCRATIC PARTY - DEMOKRATIESE PARTY		DP		
DIKWANKWETLA PARTY OF SOUTH AFRICA		DPSA		
FEDERAL PARTY		FP		
LUSO - SOUTH AFRICAN PARTY		LUSAP		
MINORITY FRONT		MF		
NATIONAL PARTY - NASIONALE PARTY		NP		

Presented by the Voter Education Programme of the Independent Electoral Commission.

Latvijas Republikas 5. Saeimas vēlēšanas 1993. gada 5., 6. jūnijā
RĪGAS VEĻŠANŪ APĢABALS

SAVIENĪBA "LATVIJAS CEĻŠ" 22

1. Anatoljs GORBUNOVŠ <input type="checkbox"/>	14. Astrida JANŠONE <input type="checkbox"/>
2. Guntars MEIEROVICS <input type="checkbox"/>	15. Andrejs SILIŅŠ <input type="checkbox"/>
3. Georgs ANDREJEVS <input type="checkbox"/>	16. Indra SĀMĪTE <input type="checkbox"/>
4. Andrejs PANTELJEJEVS <input type="checkbox"/>	17. Eduards MIHNO <input type="checkbox"/>
5. Indulis BĒRZIŅŠ <input type="checkbox"/>	18. Guntars KUSIŅŠ <input type="checkbox"/>
6. Valdis V. PAVLOVSKIS <input type="checkbox"/>	19. Pēteris ELPERTS <input type="checkbox"/>
7. Ruta MARJAŠA <input type="checkbox"/>	20. Edvīns DRIVIS <input type="checkbox"/>
8. Pēteris Paulis BOLŠAITIS <input type="checkbox"/>	21. Egils LEVITS <input type="checkbox"/>
9. Ojārs KEHRIS <input type="checkbox"/>	22. Eduards STĪPRAIS <input type="checkbox"/>
10. Inese BIRZNEDE <input type="checkbox"/>	23. Andris LIEPIŅŠ <input type="checkbox"/>
11. Vilnis BALTIŅŠ <input type="checkbox"/>	24. Jūris PETRASKEVICS <input type="checkbox"/>
12. Arturs CIPULIS <input type="checkbox"/>	
13. Romāns APŠTIS <input type="checkbox"/>	

Latvijas Republikas 5. Saeimas vēlēšanas 1993. gada 5., 6. jūnijā
RĪGAS VEĻŠANŪ APĢABALS

"LĪDZTIESĪBA" 21

1. Nikolajs KRASHINS <input type="checkbox"/>
2. Larisa LAVIŅA <input type="checkbox"/>
3. Ivans IVANOVS <input type="checkbox"/>
4. Sergejs RAZUMEJEVS <input type="checkbox"/>
5. Aitrēds RUBKIS <input type="checkbox"/>
6. Nikolajs RIŽIKOVŠ <input type="checkbox"/>
7. Filips STROGANOVŠ <input type="checkbox"/>
8. Jānis GIJS <input type="checkbox"/>
9. Vladislavs KUBECKIS <input type="checkbox"/>
10. Jānis LAPINSKIS <input type="checkbox"/>
11. Artūrs KALNIŅŠ <input type="checkbox"/>
12. Vladislavs KRŪMIŅŠ <input type="checkbox"/>

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RĪGAS VEĻŠANŪ APĢABALS

PRETKOMUNISTU APVIENĪBA 23

1. Pauts MUCENEKS <input type="checkbox"/>
2. Vilnis JORSIS <input type="checkbox"/>
3. Andrejs Edvīns FELDMANIS <input type="checkbox"/>
4. Guntis BITE <input type="checkbox"/>
5. Edvīns Zigfrīds ABULS <input type="checkbox"/>
6. Jānis KRISTONS <input type="checkbox"/>
7. Anīta SARMA <input type="checkbox"/>
8. Pāvils IVIČA <input type="checkbox"/>
9. Vilnis DZELME <input type="checkbox"/>
10. Anīta PČTINIČA <input type="checkbox"/>
11. Mirdza ROŠONOKA <input type="checkbox"/>
12. Ozdže GAILTE <input type="checkbox"/>
13. Tālvaidis BĀLIŅŠ <input type="checkbox"/>

Latvia

VAL TILL RIKSDAGEN

Folkpartiet LIBERALERNA

- 1 Bengt Westerberg, riksdagsledamot, partiledare, Stockholm
- 2 Anne Wibble, riksdagsledamot, ekon lic, Täby
- 3 Daniel Tarschys, riksdagsledamot, professor, Lidingö
- 4 Yvva Annerstedt, riksdagsledamot, adjunkt, Södertälje
- 5 Lars Leijonborg, riksdagsledamot, socionom, Solna
- 6 Sören Norrby, riksdagsledamot, ingenjör, Österåker
- 7 Karin Pilsäter, ekonomichef, Botkyrka
- 8 Carl B Hamilton, nationalekonom, Täby
- 9 Maria Arnholm, politisk sekreterare, Lidingö
- 10 Lars Bergslig, direktör, Järfälla
- 11 Anita Hagelbeck, leg psykolog, Nacka
- 12 Göran Asplund, småföretagare, Haninge
- 13 Lillemor Öst, lärare, Norrtälje
- 14 Ulo Ignats, journalist, Huddinge
- 15 Anita Amnell, förbundssekreterare, Järfälla
- 16 Gunnar Fröroth, studerande, Södertälje
- 17 Anita Tänneryd, sjuksköterska, Nacka
- 18 Bertt Wahlman, distriktsföreståndare, Botkyrka
- 19 Katarina Domsek, redaktör, Tyresö
- 20 Margaretha Herthelius, mellanstadslärare, Järfälla
- 21 Solveig Staffas, informationschef, Danderyd
- 22 Ulf Uebel, studierektor, Danderyd
- 23 Birgitta Westerberg, fil kand, Västerås
- 24 Stig Wideklev, soldatthemsförest
- 25 Kristina Feldhusen, kemist, Soll
- 26 Göran Swensson, brandmästare
- 27 Harriet Gustafsson, fru, Salem
- 28 Ege Egghammer, kyrkoherde e m
- 29 Anja Forström, företagare, Sigt
- 30 Uno Arvidsson, informationsch
- 31 Ingrid Näsholm, sekreterare, Up
- 32 Yngve Rydholm, förlagsredaktör
- 33 Ingrid Sandin, fil dr, högskolelär
- 34 Maria Malin, trafikoperatör, Stoc
- 35 Hans Andersson, lantbrukare, N

Stockholm
003-136

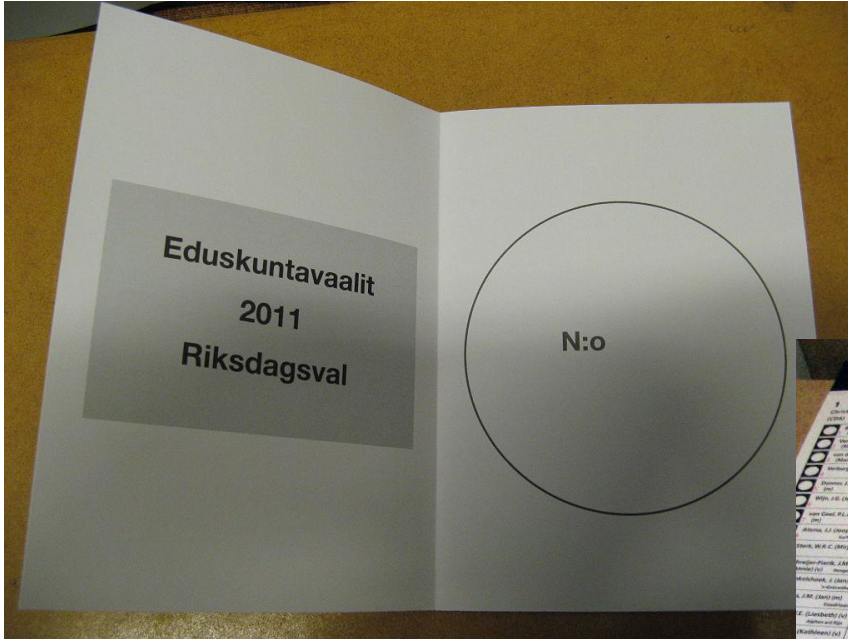
VAL TILL RIKSDAGEN

Moderata Samlingspartiet

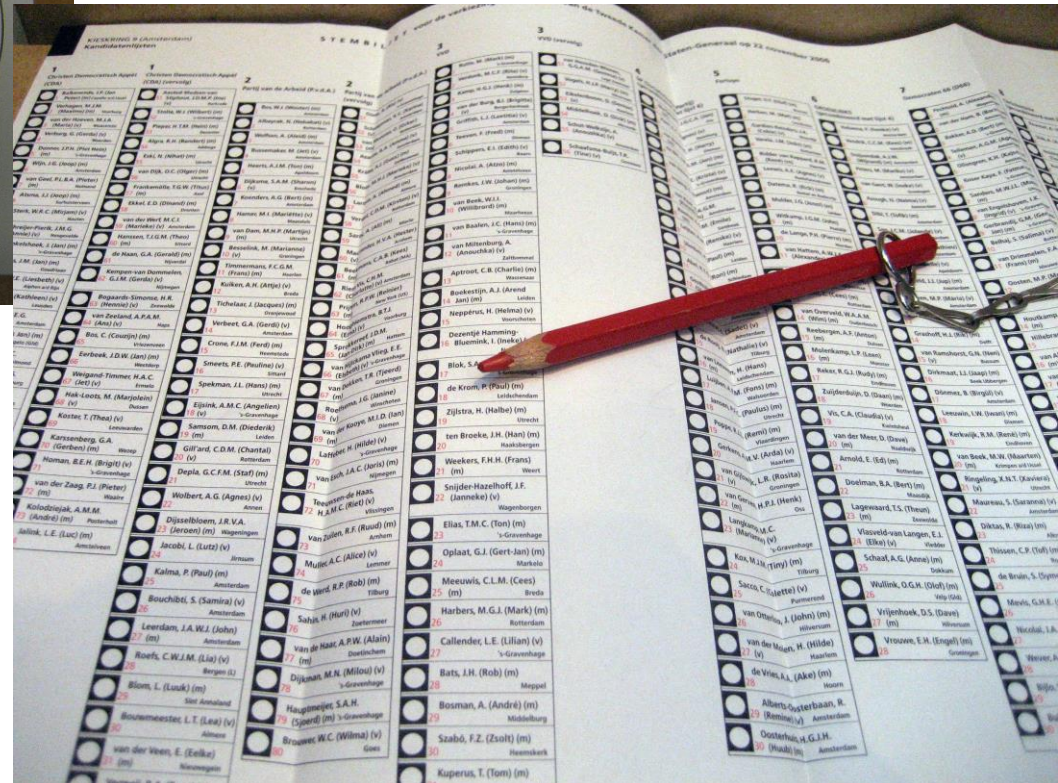
- 1 Lars Tobisson, Fil dr, riksdagsledamot
- 2 Gunnar Hökmark, Civilekonom, riksdagsledamot
- 3 Jerry Martinger, Åklagare, riksdagsledamot
- 4 Görel Bohlin, Fil kand, riksdagsledamot
- 5 Jan Sandberg, Riksdagsledamot
- 6 Stig Rindborg, Advokat
- 7 Inger Koch, Lab ass, riksdagsledamot
- 8 Knut Billing, Riksdagsledamot
- 9 Chris Heister, Politisk sekreterare
- 10 Göran Lennmarker, Internationell sekreterare
- 11 Fredrik Reinfeldt, Civilekonom, borgarrädssekreterare
- 12 All Wennertors, Riksdagsledamot
- 13 Lars Björk, Företagare
- 14 Allan Ekström, Hovrättsråd, riksdagsledamot
- 15 Claus Trolle, Jur kand, oppositionsråd
- 16 Dag Lundman, Örlögs- och Sjökapten
- 17 Christel Campbell, Ekonomichef, skattekonsult
- 18 Cecilia Westin, Fil kand, ombudsman
- 19 Eva Önbom Ekdahl, Jur kand, fil kand
- 20 Per Naess, Jur kand
- 21 Barbro Brundin, Ämneslärare
- 22 IngaBrita Mörch, Lärare
- 23 Ulf Björkman, Överstelejtjänant
- 24 Margareta Näsman, Kommunråd
- 25 Gun Blomberg, Kommunråd
- 26 Bo Lindhult, Företagare
- 27 Inga B. Agnér, Landslingsledamot
- 28 Margareta Gustafsson, Äffärsutvecklare
- 29 Niile Oskar Nilsson, Jur pol mag, kommunråd
- 30 Britt Trydning, Rev dir
- 31 Siv Sandahl, Politisk gruppledare
- 32 Stig Svensson, Företagare
- 33 Margareta Flata, Gymnastikdirektör
- 34 Gunilla Gieritz, Musipedagog
- 35 Christian Öhlin, Kommunråd

Stockholms län
001-13829

Sweden



Netherlands



Finlandia

What about THRESHOLD...

... and...



... ASSEMBLY SIZE?

STV is a **preferential system** in which the voter ranks the candidates in a **multi-member district** by marking their names with 1, 2, 3...

The candidacies are individualized on the ballot (but not on party lists) and every voter can express preferences for candidates representing different parties.

A **quota** determines the necessary votes required to win a seat.

Those ones who reach the quota are elected.

If there are still mandates to be allocated the surplus votes of winning candidates and all votes of candidates with lowest 1st preferences (who are eliminated) are redistributed until all seats are distributed.

Formula

→ Proportional – Quota (votes/seats)

District magnitude

→ Multimember districts

Ballot structure

→ Candidate-centred w/preferential ballot

→ # of ballots: 1

Session 4

COMPARING SYSTEMS

Election results in Farawayistan

In Farawayistan, there are 25.000 voters spread across 5 electoral districts. The elections are contested by 2 political parties.

	D1	D2	D3	D4	D5	Total	%	FPTP	List PR
Party A	3.000	2.600	2.551	2.551	100	10.802	43%	4	2
Party B	2.000	2.400	2.449	2.449	4.900	14.198	57%	1	3
	5.000	5.000	5.000	5.000	5.000	25.000	100%	5	5

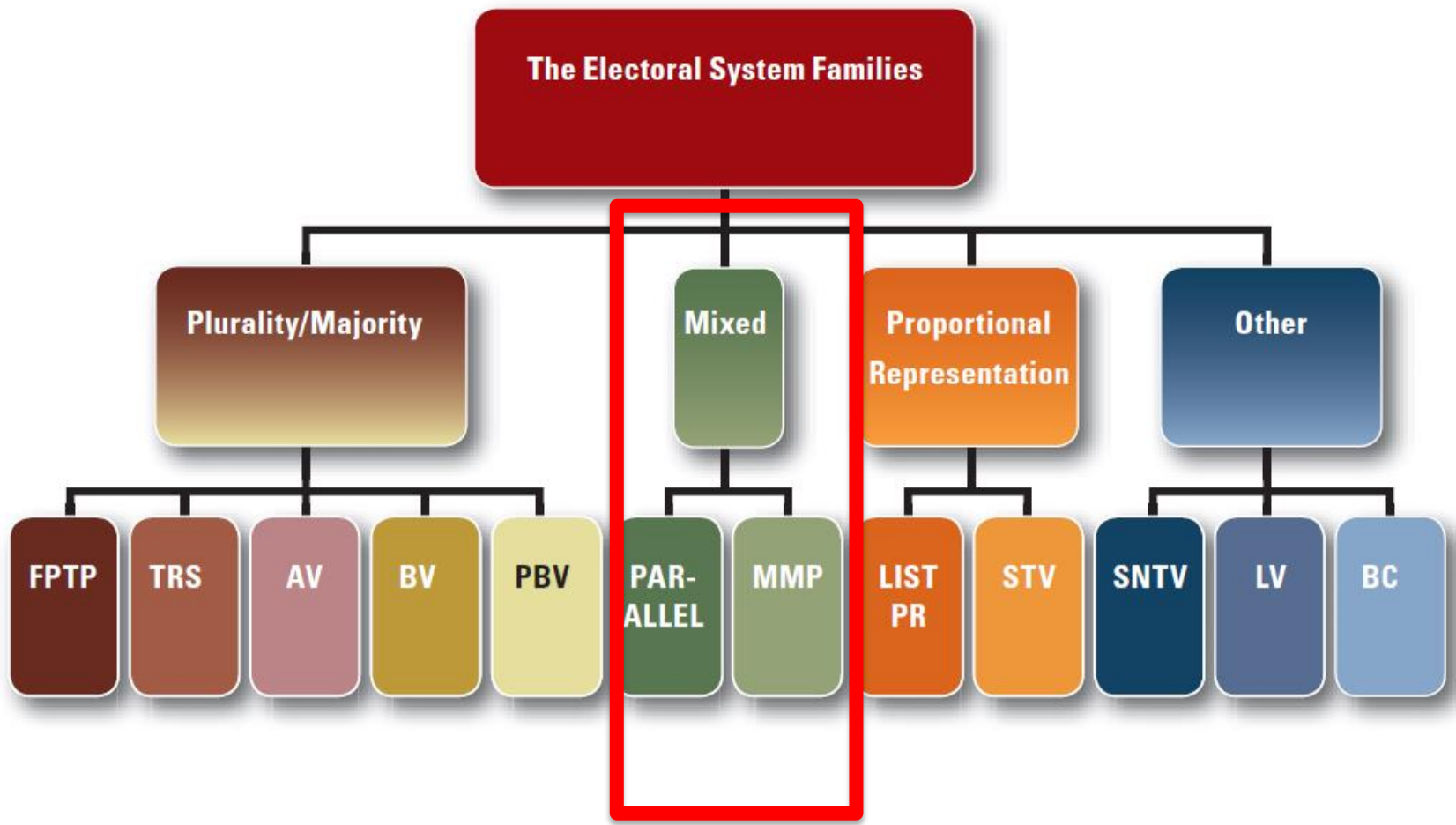
Election results in Farawayinstan

In the next elections, the number of contestants taking part the elections increased to 5 political parties.

	D1	D2	D3	D4	D5	Total	%	FPTP	List PR
Party A	2.000	2.000	2.000	200	50	6.250	25%	3	1
Party B	500	500	500	3750	500	5.750	23%	1	1
Party C	500	250	750	1.000	3.000	5.500	22%	1	1
Party D	1.000	500	1.700	25	1.025	4.250	17%		1
Party E	1.000	1.750	50	25	425	3.250	13%		1
	5.000	5.000	5.000	5.000	5.000	25.000	100%	5	5

Session 5

MIXED MEMBER SYSTEMS



Mixed systems combine elements of different electoral systems, usually the majority system and the proportional party list system, so every voter has got two votes:

- one for a candidate and
- one for a party list of candidates.

Generally such systems combine features of a majoritarian system with a proportional system.

On the other hand, it may also be the case that they simply combine the faults of those systems.

They can be:

- Mixed-Member Proportional Systems - the results of the two types of election are linked, with seat allocations for the candidates on the list dependent on:
 - the number of votes that list gets
 - what happens in the single member constituencies (majority vote)
- “Parallel” Mixed Systems - the two sets of elections are detached and distinct and are not dependent on each other for seat allocations.

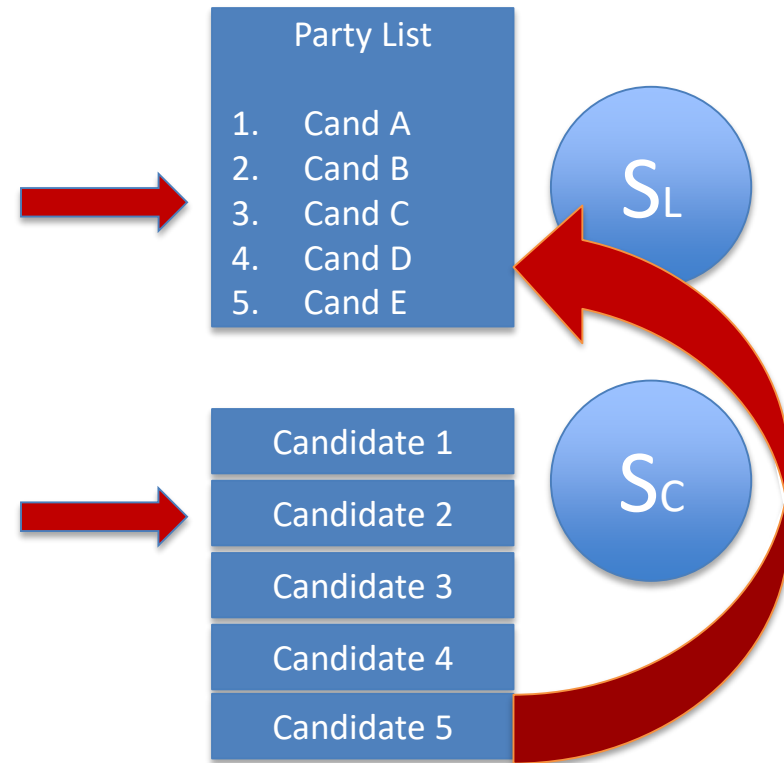
Mixed Member Proportional – Example

Total of 10 seats = 5 candidates on lists + 5 in single member districts

V_L No. of votes for party list in multimember constituency

V_C Votes for candidates in single-member constituencies

$$V_L \rightarrow S_{TOTAL}$$
$$V_C \rightarrow S_C$$
$$S_L = S_{TOTAL} - S_C$$



Parallel Mixed – Example

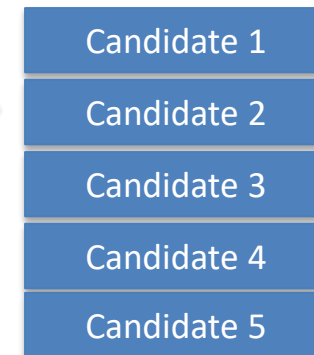
Total of 10 seats = 5 candidates on lists + 5 in single member districts



No. of votes for party list in multimember constituency



Votes for candidates in single-member constituencies



$$V_L = S_{LIST}$$
$$V_C = S_C$$
$$S_{TOTAL} = S_L + S_C$$

While a Mixed-Member Proportional Representation system generally results in proportional outcomes,
a Parallel Mixed system is likely to give non-proportional results.

Mixed-Member Proportional Representation systems are used in Germany (first country where it was used) and Hungary.

Parallel Mixed systems are used in the Russian Federation and some other former Soviet Union countries such as Georgia and Ukraine.

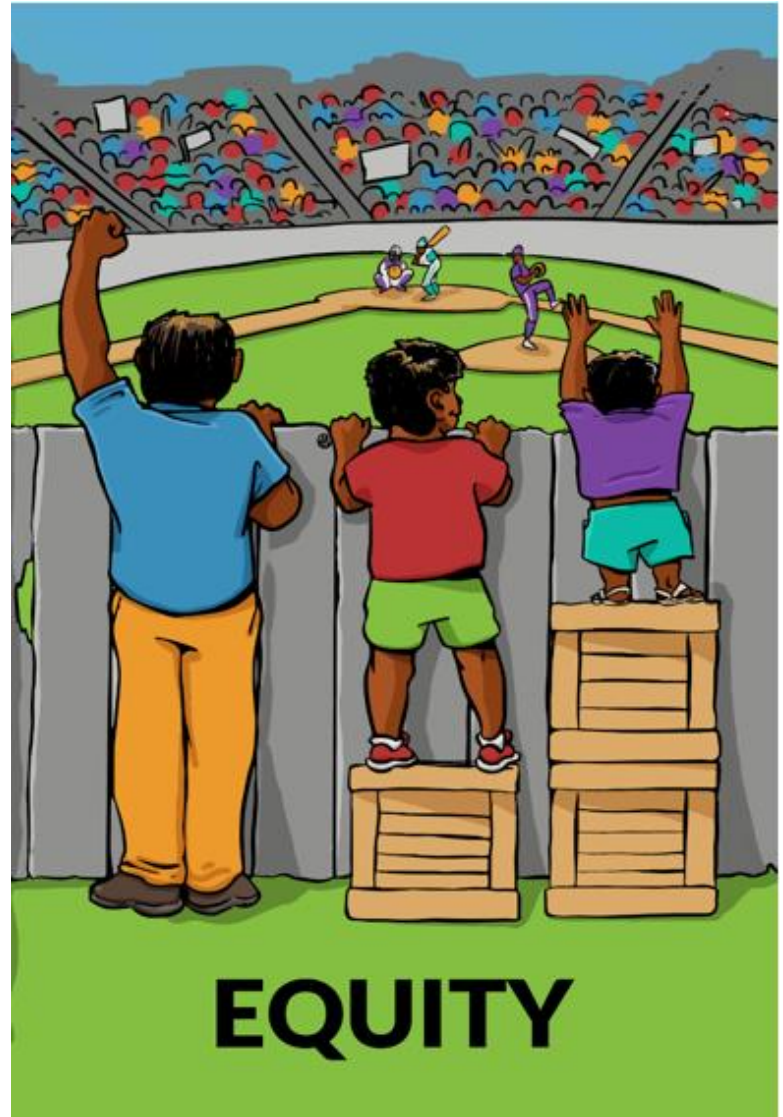
Session 6

CRITERIA FOR CHOOSING ELECTORAL SYSTEM

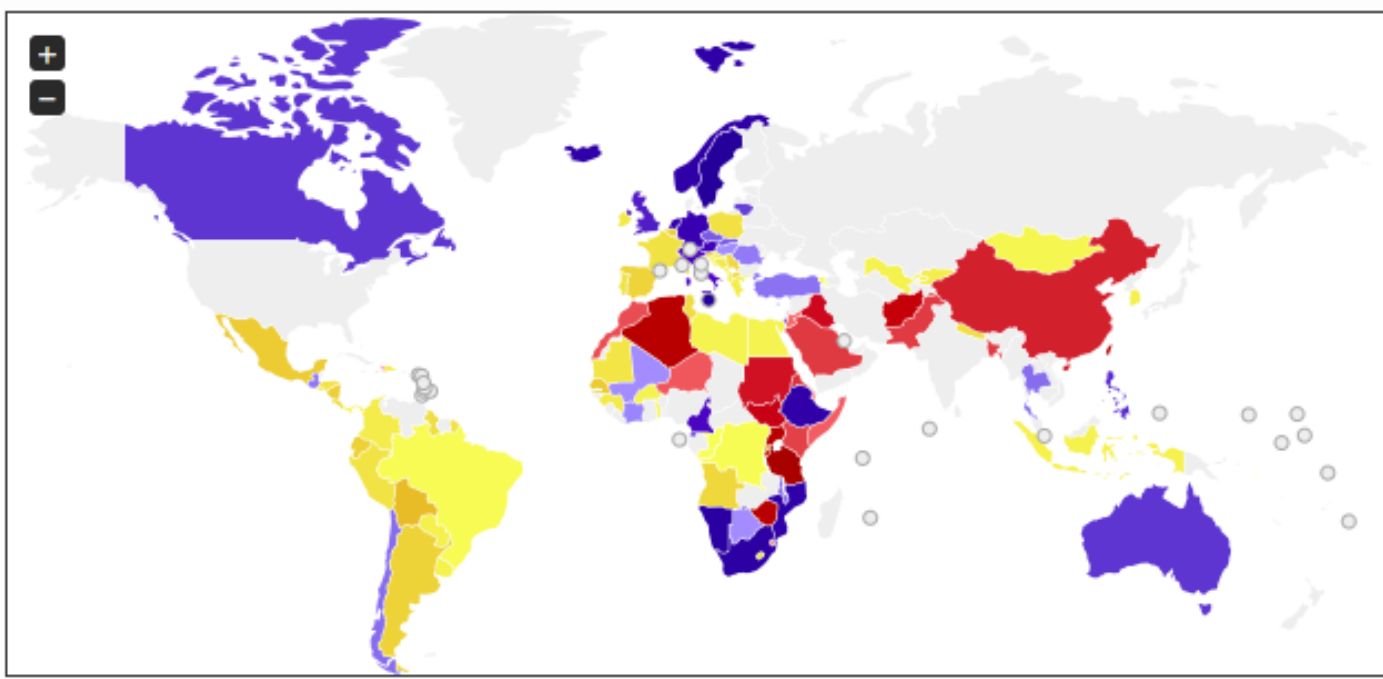
1. Provide for representation
2. Make elections accessible and meaningful
3. Provide incentives for conciliation
4. Facilitate stable and effective governments
5. Hold governments to account
6. Hold individual representatives to account
7. Encourage political parties
8. Promote legislative opposition and oversight
9. Make the electoral process sustainable
10. Take into account international obligations

No legal stipulations concerning preferable electoral system – but it is generally recognized that an electoral system should contribute to:

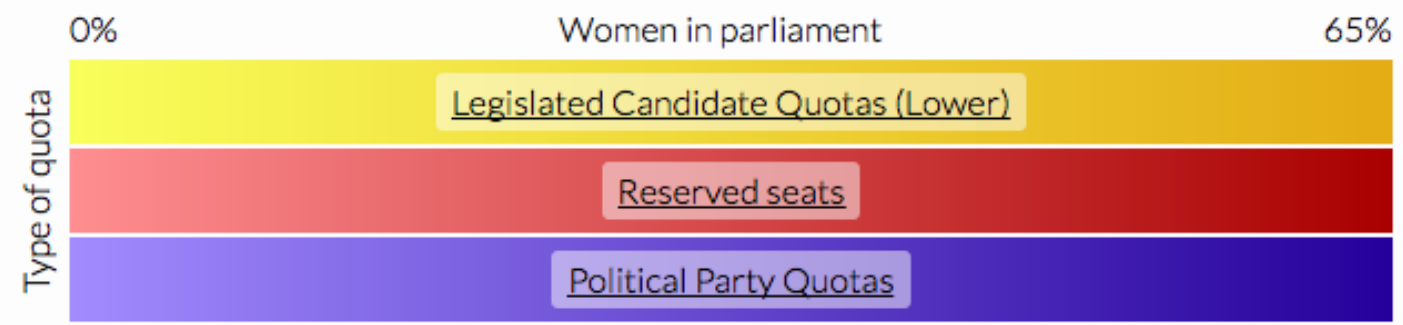
- fair representation of all citizens
- equality for men and women
- ensure the rights of minorities
- ensure rights of disabled... etc.

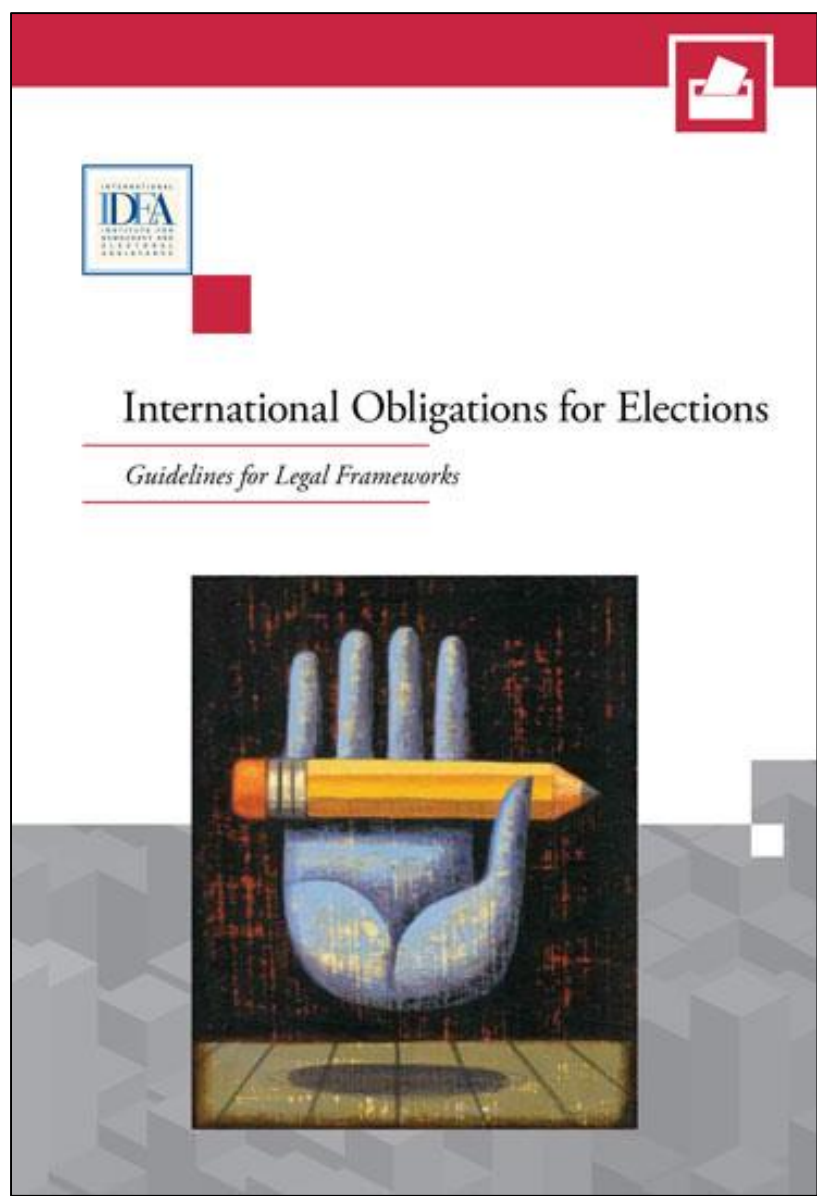


Gender quotas around the world



Countries indicated as having legislated candidate quotas or reserved seats might also have political party quotas.





Part C. Checklists

- Checklist 1: Structure of the Legal Framework
- Checklist 2: Electoral Systems
- Checklist 3: Electoral Boundaries
- Checklist 4: Political Parties
- Checklist 5: Political Finance
- Checklist 6: Electoral Management
- Checklist 7: Gender Equality
- Checklist 8: Equal Opportunities for Minorities and Marginalized Gr
- Checklist 9: Equal Opportunities for Persons with Disabilities
- Checklist 10: Electoral Observers
- Checklist 11: Civic and Voter Education
- Checklist 12: Voter Eligibility
- Checklist 13: Voter Registration
- Checklist 14: Registration of Candidacies
- Checklist 15: Media Environment
- Checklist 16: Electoral Campaign
- Checklist 17: Media Campaign
- Checklist 18: Polling
- Checklist 19: Counting and Results Management
- Checklist 20: Electoral Justice
- Checklist 21: Electoral Offences

	Drawing Electoral Boundaries	Voter Registration	Ballot Paper Design and Production	Voter Education	Number of Polling Days	By-elections	The Count
FPTP	🔴	🔴	🟢	🟢	🟢	🔴	🟢
BV	🟡	🟡	🟡	🟡	🟢	🔴	🟡
TRS	🔴	🔴	🔴	🟡	🔴	🔴	🟡
AV	🔴	🔴	🟢	🔴	🟢	🔴	🟡
PBV	🟡	🟡	🟢	🟢	🟢	🟢	🟢
List PR	🟢	🔴	🟡	🟡	🟢	🟢	🟢
STV	🟡	🟡	🟡	🔴	🟢	🔴	🔴
Parallel	🟡	🔴	🟡	🟡	🟡	🟡	🔴
MMP	🟡	🔴	🟡	🔴	🟡	🟡	🔴
BC	🟡	🔴	🟡	🔴	🟢	🔴	🟡
SNTV	🟡	🟡	🟡	🟢	🟢	🔴	🟢
LV	🟡	🟡	🟡	🟡	🟢	🔴	🟡

Key: 🟢 = Low cost and complexity; 🟡 = Medium cost and complexity; 🔴 = High cost and complexity.

Session 7

WHAT IS THE BEST ELECTORAL
SYSTEM FOR MOLDOVA...?

*NO ELECTORAL SYSTEM IS
PERFECT...*

*... BUT WHAT IS THE BEST
ELECTORAL SYSTEM IN OUR
COUNTRY?*



<http://www.idea.int/data-tools/tools/best-election-system-test>

Best **E**lectoral **S**ystems **T**est

Session 8

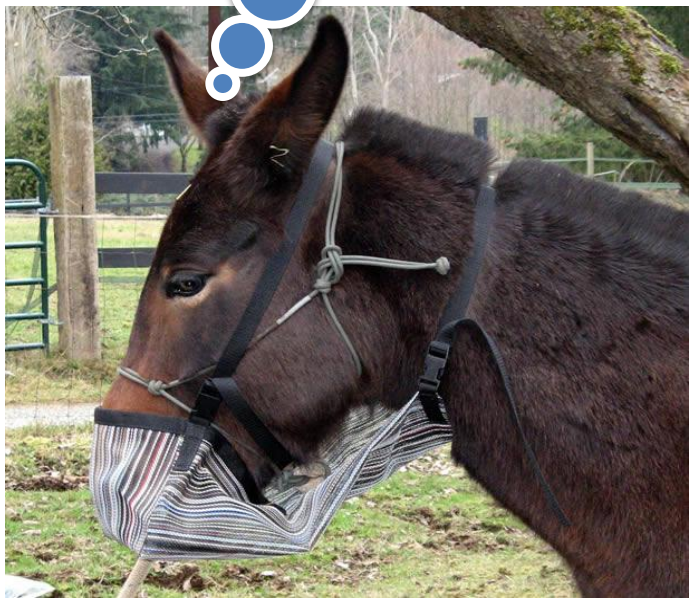
ELECTORAL SYSTEM REFORM

Why does electoral reform come about?

Why is electoral reform so hard?

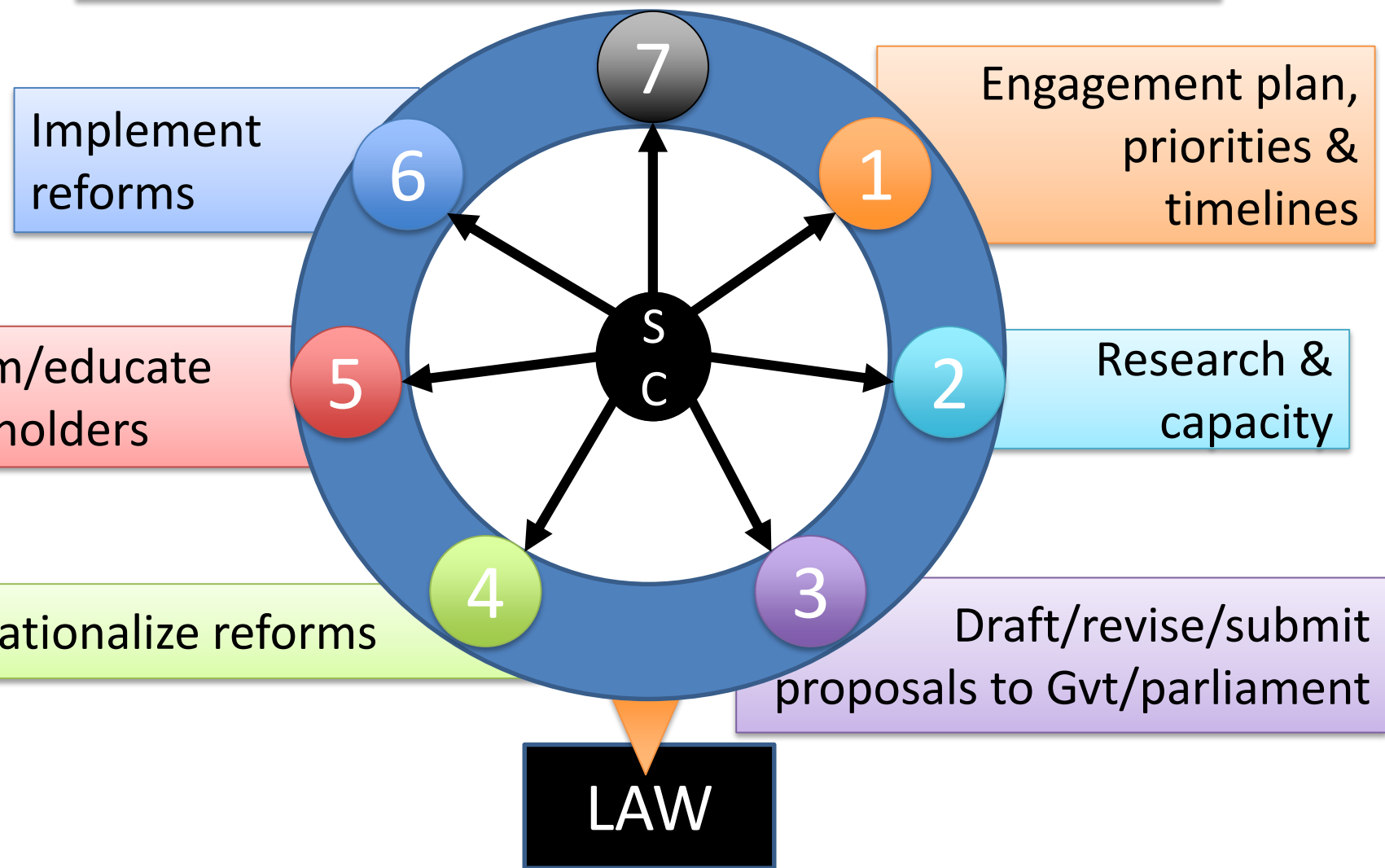


*... and it will benefit
our party and/or my
own interests...*



*This reform is the best for
the future of our
democracy!*

Post-election assessment of reform impact - revision



Thanks!

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