Mactor Report palinka









SOMMAIRE

I.	Actor presentation	3
1.	List of actors	3
II.	Objective presentation	3
1.	List of objectives	3
III.	Data input matrices	3
1.	Matrix of Direct Influences (MDI)	3
2.	Valued position matrix (2MAO)	4
IV.	Results of the study	4
1.	Direct and indirect influences	4
1.	Matrix of Direct and Indirect Influences (MDII)	4
2.	Map of influences and dependences between actors	5
3.	Net scale of influences (NS)	6
4.	MDII competitiveness	6
5.	Matrix of Maxima Direct and Indirect Influences (MMDII)	.15
6.	MMDII competitiveness	.16
2.	Actors Objectives Relationship	.24
1.	Order 1 relationship	.24
2.	Order 2 relationship	.25
3.	Order 3 relationship	
3.	Convergence between actors	
1.	Order 1 convergence	
2.	Order 2 convergence	.29
3.	Order 3 convergence	.31
4.	Divergence between actors	.33
1.	Order 1 divergence	.33
2.	Order 2 divergence	
3.	Order 3 Divergence	.37
5.	Actor ambivalence	.39
1.	Actor's ambivalence matrix	
2.	Histogram of actor's ambivalence	.40
6.	Net distance between objectives	.40
1.	Map of net distances between objectives	.40
2.	Graph of net distances between objectives	.41
7.	Net distances between actors	.42
1.	Map of net distances between actors	.42
2.	Graph of net distances between actors	.43









I. ACTOR PRESENTATION

1. LIST OF ACTORS

- 1. versenytarsak (konkurfozd)
- 2. beszallito (input)
- 3. uzletkoto (uzletkot)
- 4. maskonkur (maskonk)
- 5. hatosag (hatosagos)
- 6. kollegak (kollga)
- 7. jogszabalkoto (jogalkot)
- 8. vendeglato (vendlat)
- 9. turizmus (turszerv)
- 10. vevo (vendeg)
- 11. medioumok (media)
- 12. puszfere (finance)

II. OBJECTIVE PRESENTATION

1. LIST OF OBJECTIVES

- 1. éreklodesmax (interest)
- 2. piaci resz max (piacmax)
- 3. fizetes (fiz)
- 4. turszamnov (turnov)
- 5. vendeglprofmax (vendprof)
- 6. hitelkihelyezes (hitelkihel)
- 7. valasztek (valaszt)
- 8. minoseg (qual)

III. DATA INPUT MATRICES

1. MATRIX OF DIRECT INFLUENCES (MDI)

The Matrix of Direct Influences (MDI) Actor X Actor created from the actors' strategies table, describes the direct influences actors have on each other.

MDI	konkurfozd	input	uzletkot	maskonk	hatosagos	kollga	jogalkot	vendlat	turszerv	vendeg	media	finance	
konkurfozd	0	3	3	0	3	2	2	3	3	3	4	2	1
input	4	0	0	0	0	0	0	0	0	3	2	0	1
uzletkot	3	3	0	0	0	0	0	0	2	3	2	0	1
maskonk	2	0	0	0	0	0	2	0	2	3	0	0	1_
hatosagos	3	0	0	0	0	0	0	0	2	0	0	0	0
kollga	0	0	0	0	0	0	0	0	0	0	0	0	PSC
jogalkot	0	0	0	0	4	0	0	0	0	4	2	3	Ä
vendlat	1	0	0	0	0	0	0	0	3	2	0	0	閏
turszerv	0	0	0	0	0	0	0	0	0	3	2	0	ĮΨ
vendeg	2	0	0	2	0	0	0	3	0	0	0	0	Ž
media	3	0	0	0	0	0	1	0	0	4	0	0	LIPSOR-EPITA-MACTOR
finance	3	3	0	0	0	0	0	3	0	0	0	0	Ď

Influences are graded from 0 to 4 according to the importance of the actor's possible jeopardy:

- 0: No influence
- 1: Operating procedures
- 2: Projects









- 3: Missions
- 4: Existance

2. VALUED POSITION MATRIX (2MAO)

The matrix of valued positions Actor X Objective (2MAO) provides information on the actor's stance on each objective (pro, against, neutral or indifferent) and the hierarchy of its objectives.

2MAO	interest	piacmax	fiz	turnov	vendprof	hitelkihel	valaszt	qual	
konkurfozd	3	4	0	3	0	0	2	1	
input	0	3	0	0	0	0	0	0	
uzletkot	0	4	0	0	0	0	3	0	
maskonk	0	0	0	0	0	0	4	2]_
hatosagos	0	0	0	0	0	0	0	4	0
kollga	0	0	4	0	0	0	0	0	PSC
jogalkot	0	0	0	2	0	0	0	4	Ϋ́
vendlat	0	0	0	4	4	0	3	3	里
turszerv	2	0	0	4	0	0	0	0	₹
vendeg	0	0	0	0	0	0	4	4	Α
media	4	0	0	0	0	0	0	0	LIPSOR-EPITA-MACTOR
finance	0	3	0	0	4	4	0	0	Ĭ

The sign indicates whether the actor is likely to reach objective or not.

- 0: Objecive has a bleak outcome
- 1: Objective jeopardises the actor's operating procedures (management, etc...) / is vital for its operating procedures
- 2: Objective jeopardises the success of the actor's projects / is vital for the success of its projects
- 3: Objective jeopardises the accomplishment of the actor's mission / is indispensible for its missions
 - 4: Objective jeopardises the actor's existence / is indispensible for its existence

IV. RESULTS OF THE STUDY

1. DIRECT AND INDIRECT INFLUENCES

1. Matrix of Direct and Indirect Influences (MDII)

The MDII matrix determines the direct or indirect influences of order 2 between actors. The utility of this matrix is its more complete vision of the games of competitiveness (an actor can reduce the number of choices of another by influencing it through an intermediary actor). The "sum" operation used to calculate the MDII does not produce (in this new matrix) the same scale of intensities adopted to evaluate direct influences in MDI. Despite this, values in MDII are a good indicator of the importance of direct and indirect influences actors have on each other. Two indicators are calculated from the MDII:

- The degree of direct and indirect influence of each actor (Ii, by summing rows).
- The degree of direct and indirect dependence of each actor (Di, by summing columns).









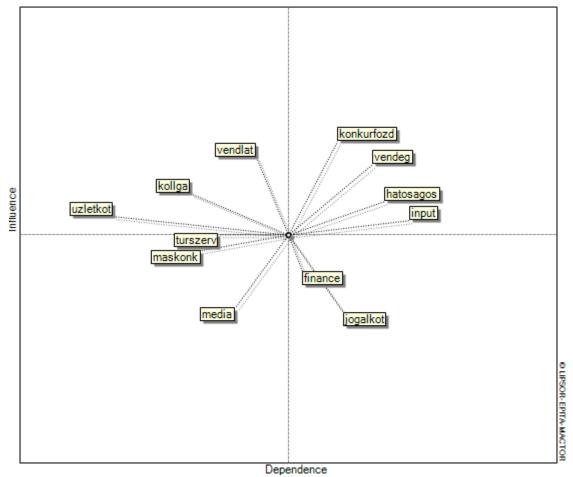
MDII	konkurfozd	input	uzletkot	maskonk	hatosagos	kollga	jogalkot	vendlat	turszerv	vendeg	media	finance	=-	
konkurfozd	0	0	0	0	0	0	0	0	0	0	0	0	0	
input	0	0	0	0	0	0	0	0	0	0	0	0	0	
uzletkot	0	0	0	0	0	0	0	0	0	0	0	0	0	
maskonk	0	0	0	0	0	0	0	0	0	0	0	0	0	
hatosagos	0	0	0	0	0	0	0	0	0	0	0	0	0	_
kollga	0	0	0	0	0	0	0	0	0	0	0	0	0	© □
jogalkot	0	0	0	0	0	0	0	0	0	0	0	0	0	PS
vendlat	0	0	0	0	0	0	0	0	0	0	0	0	0	Ä
turszerv	0	0	0	0	0	0	0	0	0	0	0	0	0	밀
vendeg	0	0	0	0	0	0	0	0	0	0	0	0	0	ΨĪ
media	0	0	0	0	0	0	0	0	0	0	0	0	0	ΜÃ
finance	0	0	0	0	0	0	0	0	0	0	0	0	0	LIPSOR-EPITA-MACTOR
Di	0	0	0	0	0	0	0	0	0	0	0	0	0	Ĭ

Values represent direct and indirect influences between actors: The higher the value, the more influence the actor has on the other.

2. <u>Map of influences and dependences between actors</u>

Map of influence and dependence between actors is a graphic representation of actors' positions with respect to influences and dependences (direct or indirect: Di and Ii) between each other. Positions are calculated automatically by the Mactor software.

Map of influences and dependences between actors











3. Net scale of influences (NS)

The net scale of direct and indirect influences measures, for every couple of actors, the distance between the direct and indirect influence. Each actor exerts (receives) direct and indirect influences of order 2 (from) each actor. The net influence scale will indicate for each couple of actors the surplus influence either exerted or received. If the scale is positive (+ sign), actor i (rows of NS matrix) has more direct and indirect influence on actor j (columns of NS matrix) than it receives from this actor. This is the opposite when the scale has a negative (-) sign. The next step is to calculate for each actor the total difference of direct and indirect influences by adding up the net influence scales on the rest of the actors.

NS	konkurfozd	input	uzletkot	maskonk	hatosagos	kollga	jogalkot	vendlat	turszerv	vendeg	media	finance	Sum	
konkurfozd		0	0	0	0	0	0	0	0	0	0	0	0	
input	0		0	0	0	0	0	0	0	0	0	0	0	
uzletkot	0	0		0	0	0	0	0	0	0	0	0	0	
maskonk	0	0	0		0	0	0	0	0	0	0	0	0	
hatosagos	0	0	0	0		0	0	0	0	0	0	0	0	0
kollga	0	0	0	0	0		0	0	0	0	0	0	0	PSC
jogalkot	0	0	0	0	0	0		0	0	0	0	0	0	Ϋ́
vendlat	0	0	0	0	0	0	0		0	0	0	0	0	图
turszerv	0	0	0	0	0	0	0	0		0	0	0	0	ΣĀ
vendeg	0	0	0	0	0	0	0	0	0		0	0	0	© LIPSOR-EPITA-MACTOR
media	0	0	0	0	0	0	0	0	0	0		0	0	ä
finance	0	0	0	0	0	0	0	0	0	0	0		0	ň

Values are relative whole numbers:

The (+) sign indicates the actor exerts more influence than it receives.

The (-) sign indicates the actor exerts less influence than it receives.

4. MDII competitiveness

a) MDII competitiveness vector

The Matrix of Direct an Indirect Influences (MDII) provides two types of useful information:

- The direct and indirect influences actor i has on actor j (MDII)ij where i!=j and are equivalent, by definition, to the direct and indirect dependence actor j has with respect to actor i.
- The indirect influences actor i has on itself coming through an intermediary actor. This is called retroaction (MDII)ii. When an actor is more competitive so will be its influence, but its dependence and retroaction will be quite weak. It is foolish to think that only the actor's influence measures its competitiveness. An actor can be very influential, be also very dependent and at the same time be very retroactive: this would result in a weak competitiveness. However, an actor being moderately influential, and having no dependence or retroaction will be very competitive.

	<u> 2</u> .	
konkurfozd	0.00	
input	0.00	
uzletkot	0.00	1
maskonk	0.00	١
hatosagos	0.00	0
kollga	0.00	ğ
jogalkot	0.00	۲
vendlat	0.00	7
turszerv	0.00	ž
vendeg	0.00	Ž
media	0.00	© LIPSOR-EPI A-MAC I OR
finance	0.00	۲









 ${\sf Ri}^*$ is the competitiveness of actor i considering its max: influences; direct and indirect dependence; and feedback.

b) Histogram of MDII's competitiveness

The MDII competitiveness histogram is created from the MDII competitiveness vector.

Histogram of MDII's competitiveness

versenytarsak	0			
beszallito	0			
uzletkoto	0			
maskonkur	0			
hatosag	0			
kollegak	0			
jogszabalkoto	0			
vendeglato	0			
turizmus	0			
vevo	0			
medioumok	0			
puszfere	0			
	1			



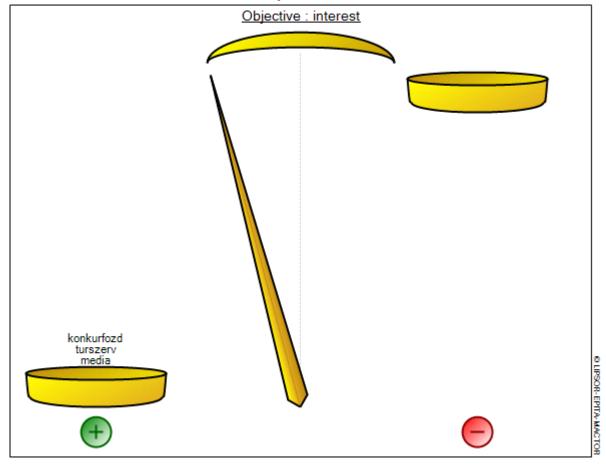






c) MDII competitiveness scale - Objective : éreklodesmax

d)





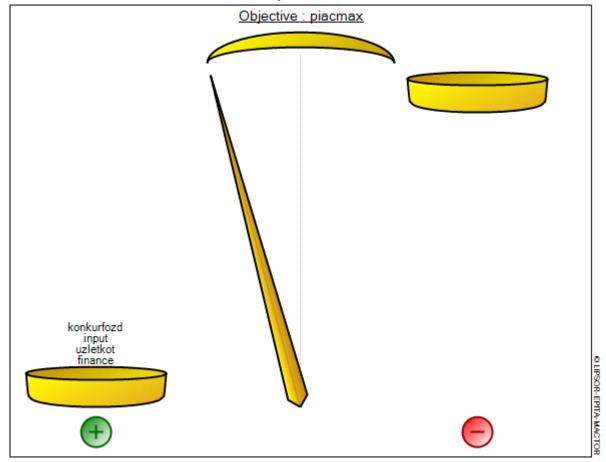






e) MDII competitiveness scale - Objective : piaci resz max

f)





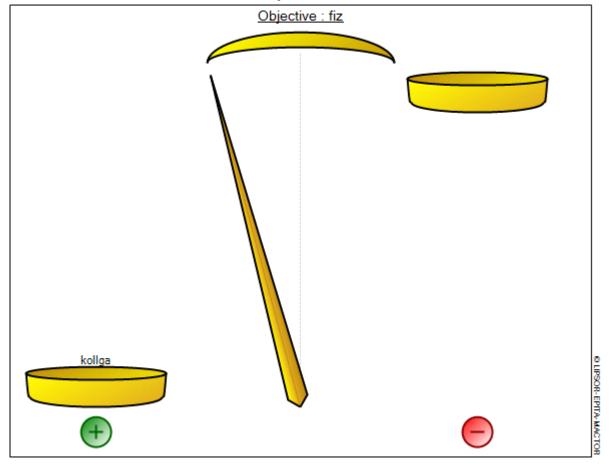






g) MDII competitiveness scale - Objective : fizetes

h)





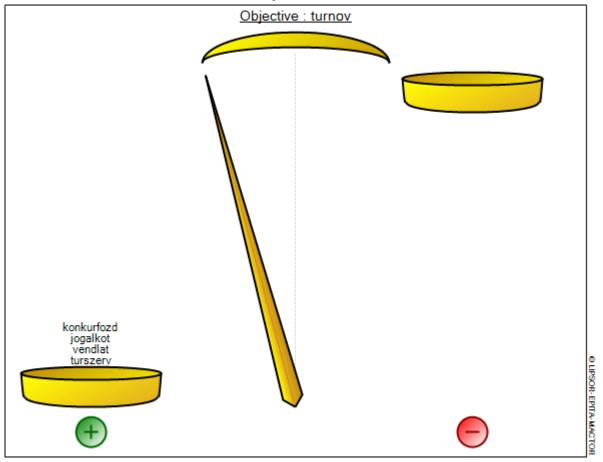






i) MDII competitiveness scale - Objective : turszamnov

j)





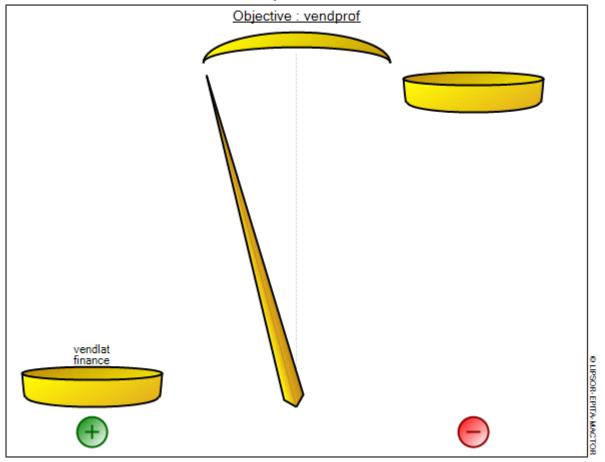






k) MDII competitiveness scale - Objective : vendeglprofmax

I)





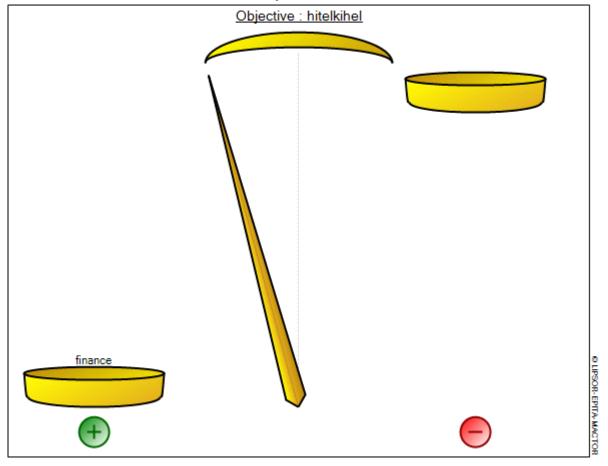






m) MDII competitiveness scale - Objective : hitelkihelyezes

n)





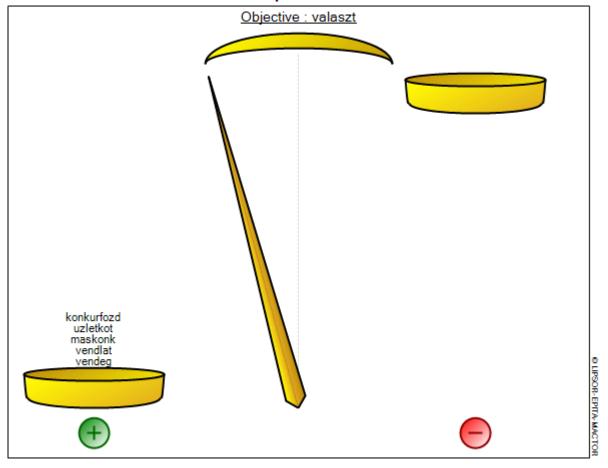






o) MDII competitiveness scale - Objective : valasztek

p)







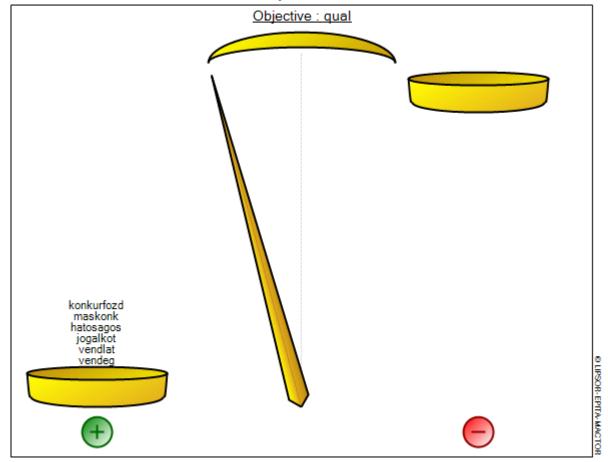




q) MDII competitiveness scale - Objective : minoseg

r)

MDII competitiveness scale



5. <u>Matrix of Maxima Direct and Indirect Influences</u> (MMDII)

The MMDII is employed to determine the maximum level of influence an actor can have on another, either directly or indirectly (through an intermediary actor). However, in the MDII matrix we loose the sense the simple meaning used to construct the scale of intensities (of direct influences in the MDI matrix), the MMDII conserves this scale. There are two interesting results given by the MMDII:

- The degree of direct and indirect influence maxima of every actor (IMAXi) is calculated by adding the rows.
- The degree of direct and indirect dependence maxima of every actor (DMAXi) is calculated by adding the columns.









MMDII	konkurfozd	input	uzletkot	maskonk	hatosagos	kollga	jogalkot	vendlat	turszerv	vendeg	media	finance	IMAXi	
konkurfozd	0	0	0	0	0	0	0	0	0	0	0	0	0	
input	0	0	0	0	0	0	0	0	0	0	0	0	0	
uzletkot	0	0	0	0	0	0	0	0	0	0	0	0	0	
maskonk	0	0	0	0	0	0	0	0	0	0	0	0	0	
hatosagos	0	0	0	0	0	0	0	0	0	0	0	0	0	l_
kollga	0	0	0	0	0	0	0	0	0	0	0	0	0	© □
jogalkot	0	0	0	0	0	0	0	0	0	0	0	0	0	PS
vendlat	0	0	0	0	0	0	0	0	0	0	0	0	0	Ϋ́
turszerv	0	0	0	0	0	0	0	0	0	0	0	0	0	띺
vendeg	0	0	0	0	0	0	0	0	0	0	0	0	0	© LIPSOR-EPITA-MACTOR
media	0	0	0	0	0	0	0	0	0	0	0	0	0	Α̈́
finance	0	0	0	0	0	0	0	0	0	0	0	0	0	H
DMAXi	0	0	0	0	0	0	0	0	0	0	0	0	0	Ď

Values represent maximum direct and indirect influences between actors: The higher the value, the more influence the actor has on the other.

6. <u>MMDII competitiveness</u>

a) Histogram of MMDII's competitiveness

The MMDII competitiveness histogram is created from the MMDII competitiveness vector.

Histogram of MMDII's competitiveness

versenytarsak	0			
beszallito	0			
uzletkoto	0			
maskonkur	0			
hatosag	0			
kollegak	0			
jogszabalkoto	0			
vendeglato	0			
turizmus	0			
vevo	0			
medioumok	0			
puszfere	0			
	I			



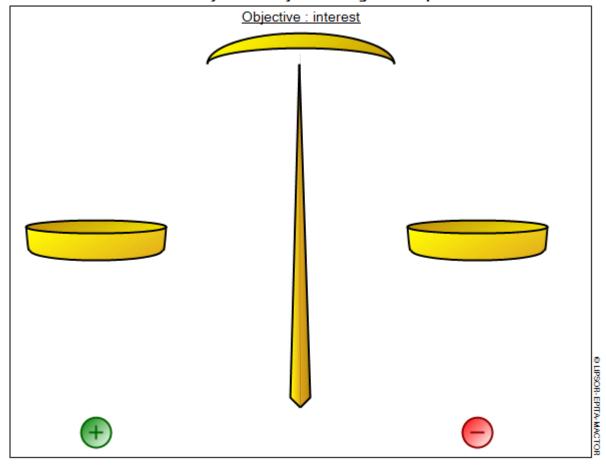






b) Position scale by valued objectives weighted competitiveness - Objective : éreklodesmax

c)
Position scale by valued objectives weighted competitiveness





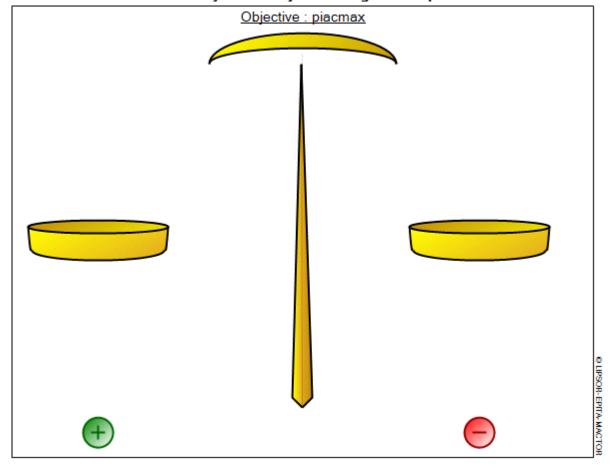






d) Position scale by valued objectives weighted competitiveness - Objective : piaci resz max

e)
Position scale by valued objectives weighted competitiveness





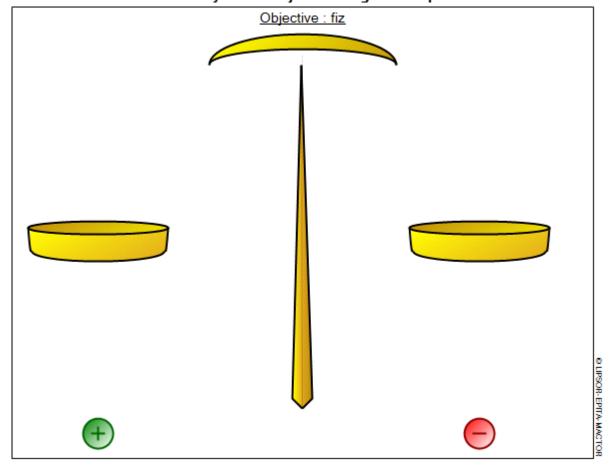






f) Position scale by valued objectives weighted competitiveness - Objective : fizetes

g)
Position scale by valued objectives weighted competitiveness





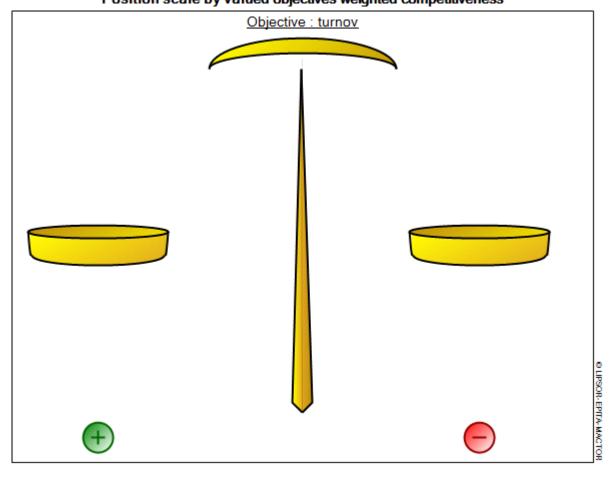






h) Position scale by valued objectives weighted competitiveness - Objective : turszamnov

i)
Position scale by valued objectives weighted competitiveness





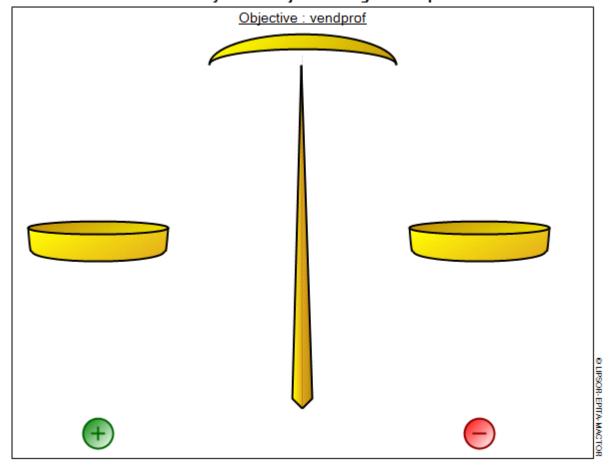






j) Position scale by valued objectives weighted competitiveness - Objective : vendeglprofmax

k)
Position scale by valued objectives weighted competitiveness





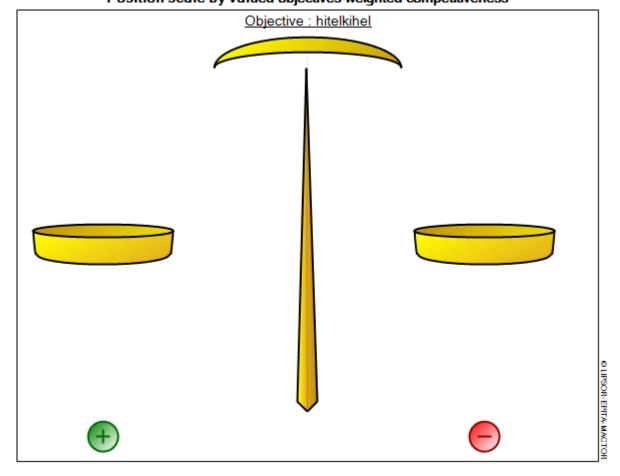






I) Position scale by valued objectives weighted competitiveness - Objective : hitelkihelyezes

m)
Position scale by valued objectives weighted competitiveness





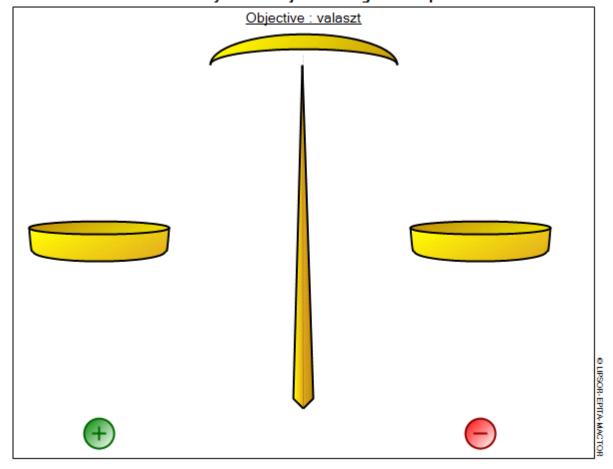






n) Position scale by valued objectives weighted competitiveness - Objective : valasztek

o)
Position scale by valued objectives weighted competitiveness





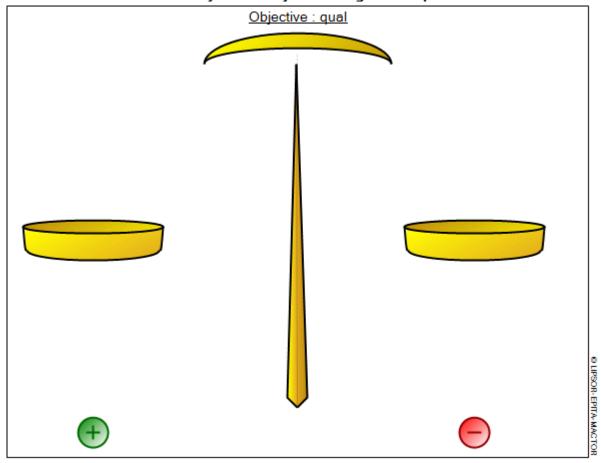






p) Position scale by valued objectives weighted competitiveness - Objective : minoseg

q)
Position scale by valued objectives weighted competitiveness



2. ACTORS OBJECTIVES RELATIONSHIP

1. Order 1 relationship

a) Simple position matrix (1MAO)

The simple position 1MAO matrix shows the valency of each actor with respect to every objective (likely, unlikely, neutral, or indifferent). This matrix, result of Mactor's phase 3, is not made up of the initial data entries. Mactor recalculates it from 2MAO.









1MAO	interest	piacmax	fiz	turnov	vendprof	hitelkihel	valaszt	qual	Absolute sum	
konkurfozd	1	1	0	1	0	0	1	1	5	
input	0	1	0	0	0	0	0	0	т-	
uzletkot	0	1	0	0	0	0	1	0	2	
maskonk	0	0	0	0	0	0	1	1	2	
hatosagos	0	0	0	0	0	0	0	1	1	
kollga	0	0	1	0	0	0	0	0	1	
jogalkot	0	0	0	1	0	0	0	1	2	
vendlat	0	0	0	1	1	0	1	1	4	(O)
turszerv	1	0	0	1	0	0	0	0	2	PS
vendeg	0	0	0	0	0	0	1	1	2	Ä
media	1	0	0	0	0	0	0	0	1	핃
finance	0	1	0	0	1	1	0	0	3	© LIPSOR-EPITA-MACTOR
Number of agreements	3	4	1	4	2	1	5	6		ΑN
Number of disagreements	0	0	0	0	0	0	0	0		3
Number of positions	3	4	1	4	2	1	5	6		Ď

-1: actor unlikely to achieve objective

0: Neutral position

1: actor likely to achieve objective

2. Order 2 relationship

a) Valued position matrix (2MAO)

The 2MAO matrix specifies the actor's position on each objective (pro, against, neutral or indifferent). This matrix is the initial information given by the user and also presents marginalities.

2MAO	interest	piacmax	fiz	turnov	vendprof	hitelkihel	valaszt	qual	
konkurfozd	3	4	0	თ	0	0	2	1	
input	0	3	0	0	0	0	0	0	
uzletkot	0	4	0	0	0	0	3	0	
maskonk	0	0	0	0	0	0	4	2]_
hatosagos	0	0	0	0	0	0	0	4	0
kollga	0	0	4	0	0	0	0	0	PS
jogalkot	0	0	0	2	0	0	0	4	ĮΫ
vendlat	0	0	0	4	4	0	3	3	ᄪ
turszerv	2	0	0	4	0	0	0	0	ĮΨ
vendeg	0	0	0	0	0	0	4	4	© LIPSOR-EPITA-MACTOR
media	4	0	0	0	0	0	0	0	占
finance	0	3	0	0	4	4	0	0	Ĭ

The sign indicates whether the actor is likely to reach objective or not.

- 0: Objecive has a bleak outcome
- 1: Objective jeopardises the actor's operating procedures (management, etc...) $\!\!\!/$ is vital for its operating procedures
- 2: Objective jeopardises the success of the actor's projects / is vital for the success of its projects
- 3: Objective jeopardises the accomplishment of the actor's mission / is indispensible for its missions
 - 4: Objective jeopardises the actor's existence / is indispensible for its existence





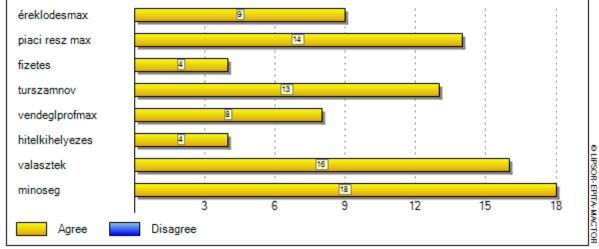




b) Histogram of actor's implication towards its objectives 2MAO

This histogram is produced from the valued relationship matrix (order 2) between actors and objectives, 2MAO. It represents the actor's objectives mobilisation. The histogram is used to identify for each actor, the extent of its position with respect to the defined objectives, e.g. pro or against.

éreklodesmax



Histogram of actor's implication towards its objectives 2MAO

3. Order 3 relationship

a) Weighted valued position matrix (3MAO)

The weighted (with respect to competitiveness) valued position matrix (3MAO) describes each actor's position on every objective. This is taking into account its degree of opinion on every objective, its objective hierarchy and competitiveness between actors.

										_
ЗМАО	interest	piacmax	fiz	turnov	vendprof	hitelkihel	valaszt	qual	Mobilisation	
konkurfozd	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
input	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
uzletkot	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
maskonk	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
hatosagos	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
kollga	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
jogalkot	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
vendlat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	⊚□
turszerv	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PS
vendeg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Ä
media	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	图
finance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ĮΨ
Number of agreements	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		ĮΧ
Number of disagreements	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		© LIPSOR-EPITA-MACTOR
Degree of mobilisation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		ă

Positive values represent the actor's mobilisation towards its objectives. Negative values represent the rate of opposition.

b) Histogram of actor's mobilisation towards its objectives 3MAO

This histogram is produced from the valued relationship matrix (order 3) between actors and objectives, 3MAO. It represents the actions taken by actors towards objectives. The histogram is used



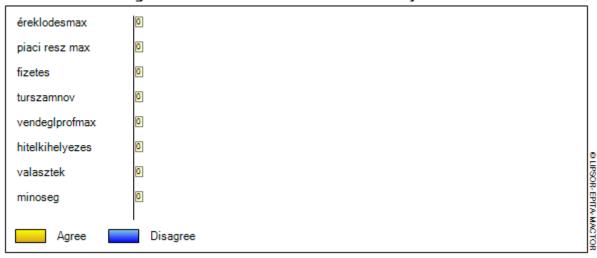






to identify for each actor, the extent of its position with respect to the defined objectives, e.g. pro or against.

Histogram of actor's mobilisation towards its objectives 3MAO



c) Weighted valued position matrix (3MAO)

ЗМАО	interest	piacmax	fiz	turnov	vendprof	hitelkihel	valaszt	qual	Mobilisation	
konkurfozd	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
input	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
uzletkot	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
maskonk	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
hatosagos	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
kollga	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
jogalkot	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
vendlat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
turszerv	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	© LIPSOR-
vendeg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	구
media	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	밀
finance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ΨĪ
Number of agreements	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		ĮΧ
Number of disagreements	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		EPITA-MACTOR
Degree of mobilisation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		Ĭ

Positive values represent the actor's mobilisation towards its objectives. Negative values represent the rate of opposition.

3. CONVERGENCE BETWEEN ACTORS

1. <u>Order 1 convergence</u>

a) Convergence matrix (1CAA)

The Matrix of objectives convergences between actors or simple Convergences Actor X Actor (1CAA) identifies for a couple of actors the number of common positions they have on objectives (pro or against). This would identify the number of possible alliances. "Neutral" and "indifferent" positions (coded as "0") are not taken into consideration. This is a symmetrical matrix.









1CAA	konkurfozd	input	uzletkot	maskonk	hatosagos	kollga	jogalkot	vendlat	turszerv	vendeg	media	finance	
konkurfozd	0	1	2	2	1	0	2	ფ	2	2	1	1	
input	1	0	1	0	0	0	0	0	0	0	0	1	
uzletkot	2	1	0	1	0	0	0	1	0	1	0	1	ĺ
maskonk	2	0	1	0	1	0	1	2	0	2	0	0	ĺ
hatosagos	1	0	0	1	0	0	1	1	0	1	0	0	_
kollga	0	0	0	0	0	0	0	0	0	0	0	0	© □
jogalkot	2	0	0	1	1	0	0	2	1	1	0	0	PS(
vendlat	3	0	1	2	1	0	2	0	1	2	0	1	Ŗ
turszerv	2	0	0	0	0	0	1	1	0	0	1	0	图
vendeg	2	0	1	2	1	0	1	2	0	0	0	0	Σ
media	1	0	0	0	0	0	0	0	1	0	0	0	© LIPSOR-EPITA-MACTOR
finance	1	1	1	0	0	0	0	1	0	0	0	0	H
Number of convergences	17	3	7	9	5	0	8	13	5	9	2	4	Ď

The values represent the degree of convergence: the higher the intesity, the more actors have common interests

b) Map of order 1 convergences between actors

The map of convergences between actors maps the actors with respect to their convergences (data in matrices 1CAA, 2CAA, 3CAA). That is, the closer actors are to each other, the more their convergence is intense. This map is used to create a graph of actors' convergences.

input vendeg maskonk vendiat konkurfozd hatosagos a logalkot media

Map of order 1 convergences between actors



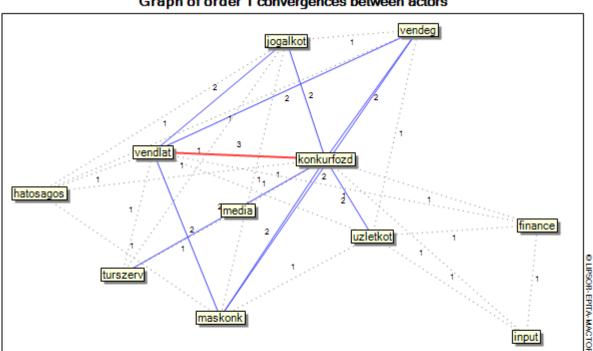






c) Graph of order 1 convergences between actors

The graph of convergences between actors maps the actors with respect to their convergences (data in matrices 1CAA, 2CAA, 3CAA). That is, the closer actors are to each other, the more their convergence is intense.



Graph of order 1 convergences between actors

2. Order 2 convergence

Weakest convergences Weak convergences Moderate convergences Strong convergences Strongest convergences

a) Valued convergence matrix (2CAA)

The valued convergence matrix or Valued Convergence Actors X Actors (2CAA) is related to the Matrix of valued positions Actors X Objectives (2MAO). This calculates the average convergence intensity between two actors, when these have the same degree (pro or against the objective). The values in this matrix do not measure the number of potential alliances (as in 1CAA), but the alliance intensity with the objectives hierarchy (preferences) of the couple of actors. This is a symmetrical matrix.









2CAA	konkurfozd	input	uzletkot	maskonk	hatosagos	kollga	jogalkot	vendlat	turszerv	vendeg	media	finance
konkurfozd	0.0	3.5	6.5	4.5	2.5	0.0	5.0	8.0	6.0	5.5	3.5	3.5
input	3.5	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
uzletkot	6.5	3.5	0.0	3.5	0.0	0.0	0.0	3.0	0.0	3.5	0.0	3.5
maskonk	4.5	0.0	3.5	0.0	3.0	0.0	3.0	6.0	0.0	7.0	0.0	0.0
hatosagos	2.5	0.0	0.0	3.0	0.0	0.0	4.0	3.5	0.0	4.0	0.0	0.0
kollga	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
jogalkot	5.0	0.0	0.0	3.0	4.0	0.0	0.0	6.5	3.0	4.0	0.0	0.0
vendlat	8.0	0.0	3.0	6.0	3.5	0.0	6.5	0.0	4.0	7.0	0.0	4.0
turszerv	6.0	0.0	0.0	0.0	0.0	0.0	3.0	4.0	0.0	0.0	3.0	0.0
vendeg	5.5	0.0	3.5	7.0	4.0	0.0	4.0	7.0	0.0	0.0	0.0	0.0
media	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0 4.0 0.0 0.0 0.0 0.0 14.0
finance	3.5	3.0	3.5	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0
Number of convergences	48.5	10.0	23.5	27.0	17.0	0.0	25.5	42.0	16.0	31.0	6.5	14.0
Degree of convergence (%)	100.0											

The values represent the degree of convergence: the higher the intesity, the more actors have common interests

b) Map of order 2 convergences between actors

The map of convergences between actors maps the actors with respect to their convergences (data in matrices 1CAA, 2CAA, 3CAA). That is, the closer actors are to each other, the more their convergence is intense. This map is used to create a graph of actors' convergences.

media turszerv jogalkot kollga kollga konkurfozd vendlat vendlat vendeg jogalkot konkurfozd vendlat vendeg jogalkot konkurfozd vendlat vendeg jogalkot konkurfozd vendeg jogalkot konkurfozd vendlat vendeg jogalkot konkurfozd vendlat vendeg jogalkot konkurfozd vendeg jogalkot konkurfozd vendeg jogalkot vendeg jogalkot

Map of order 2 convergences between actors



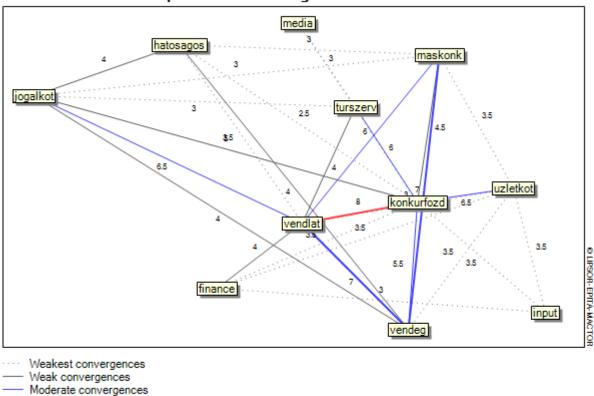






c) Graph of order 2 convergences between actors

The graph of convergences between actors maps the actors with respect to their convergences (data in matrices 1CAA, 2CAA, 3CAA). That is, the closer actors are to each other, the more their convergence is intense.



Graph of order 2 convergences between actors

3. Order 3 convergence

Strong convergences Strongest convergences

a) Weighted valued convergence matrix (3CAA)

The weighted valued matrix of convergences or weighted valued Convergences Actors X Actors (3CAA) is related to the weighted valued position matrix Actors X Objectives (3MAO). It identifies for a couple of actors the number of common positions they have on objectives (pro or against). This would identify the number of possible alliances also taking into account the actors' preferences in terms of objectives and their competitiveness. This is a symmetrical matrix.









3CAA	konkurfozd	input	uzletkot	maskonk	hatos agos	kollga	jogalkot	vendlat	turszerv	vendeg	media	finance	
konkurfozd	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
input	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
uzletkot	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
maskonk	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
hatosagos	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
kollga	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	_
jogalkot	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	© LIPSOR-
vendlat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PS
turszerv	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Ϋ́
vendeg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	밀
media	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ĮΨ
finance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	lĕ
Number of convergences	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	EPITA-MACTOR
Degree of convergence (%)	0.0												Ĭ

The values represent the degree of convergence: the higher the intesity, the more actors have common interests

b) Map of order 3 convergences between actors

The map of convergences between actors maps the actors with respect to their convergences (data in matrices 1CAA, 2CAA, 3CAA). That is, the closer actors are to each other, the more their convergence is intense. This map is used to create a graph of actors' convergences.

| maskonk | koliga | input | vendeg | jogalkot | | insurance | ins

Map of order 3 convergences between actors









c) Graph of order 3 convergences between actors

The graph of convergences between actors maps the actors with respect to their convergences (data in matrices 1CAA, 2CAA, 3CAA). That is, the closer actors are to each other, the more their convergence is intense.

Graph of order 3	3 convergence	es between actors	9	
				c
				3
				i i
				3
				8%
				o troops entry mys. For
···· Weakest convergences				
— Weak convergences				
— Moderate convergences				
Strong convergences Strongest convergences				

4. DIVERGENCE BETWEEN ACTORS

1. Order 1 divergence

a) Divergence matrix (1DAA)

The Matrix of divergences of objectives between actor or simple Divergences Actors X Actors (1DAA) identifies for each couple of actors the number of objectives on which these actors do not hold the same position (one actor is pre the objective and the other is against it). In other words it describes the number of potential conflicts. "Neutral" and "indifferent" positions (with code "0") are not taken into consideration. This is a symmetrical matrix.









1DAA	konkurfozd	input	uzletkot	maskonk	hatosagos	kollga	jogalkot	vendlat	turszerv	vendeg	media	finance	
konkurfozd	0	0	0	0	0	0	0	0	0	0	0	0	
input	0	0	0	0	0	0	0	0	0	0	0	0]
uzletkot	0	0	0	0	0	0	0	0	0	0	0	0	1
maskonk	0	0	0	0	0	0	0	0	0	0	0	0	1
hatosagos	0	0	0	0	0	0	0	0	0	0	0	0]_
kollga	0	0	0	0	0	0	0	0	0	0	0	0	© LIPSOR-EPITA-MACTOR
jogalkot	0	0	0	0	0	0	0	0	0	0	0	0	PS
vendlat	0	0	0	0	0	0	0	0	0	0	0	0] 두
turszerv	0	0	0	0	0	0	0	0	0	0	0	0	핃
vendeg	0	0	0	0	0	0	0	0	0	0	0	0	ĮΫ
media	0	0	0	0	0	0	0	0	0	0	0	0	\ A
finance	0	0	0	0	0	0	0	0	0	0	0	0	lä
Number of divergences	0	0	0	0	0	0	0	0	0	0	0	0	Ĭ

The values represent the degree of divergence: the higher the intesity, the more actors have diverging interests

b) Map of order 1 divergences between actors

This maps the actors' positions according to their valued divergences (data found in Matrix 2DAA). That is, the further apart actors are to each other, the more their divergence is intense.

input vendlat ogalkot hatosagos konkurfozd finance maskonk kollga vendeg

Map of order 1 divergences between actors









c) Graph of order 1 divergences between actors

The graph of divergences between actors, maps the actors of order 2 with respect to their divergences (data in matrices 1DAA). It helps to identify potential alliances and conflicts.

2. Order 2 divergence

a) Valued divergence matrix (2DAA)

The Matrix of valued divergences or valued Divergences Actors X Actors (2DAA) is related to the Matrix of valued positions Actors X Objectives (2MAO). It identifies for each couple of actors the number of objectives for which these actors do not hold the same position (one actor is pro the objective and the other is against it). The values in this matrix do not measure the number of potential conflicts (as in 1DAA), but rather the conflict intensity with the objectives hierarchy (preferences) of the couple of actors. This is a symmetrical matrix.









2DAA	konkurfozd	input	uzletkot	maskonk	hatosagos	kollga	jogalkot	vendlat	turszerv	vendeg	media	finance	
konkurfozd	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
input	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0]
uzletkot	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
maskonk	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
hatosagos	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
kollga	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0]_
jogalkot	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	© LIPSOR-
vendlat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PS
turszerv	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
vendeg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	图
media	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Ϋ́
finance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	EPITA-MAC
Number of divergences	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	STOR
Degree of divergence (%)	0.0												ň

The values represent the degree of divergence: the higher the intesity, the more actors have diverging interests

b) Map of order 2 divergences between actors

This maps the actors' positions according to their valued divergences (data found in Matrix 2DAA). That is, the further apart actors are to each other, the more their divergence is intense.

media turszerv [ogalkot] vendlat input [input] konkurfozd kollga maskonk hatosagos vendeg

Map of order 2 divergences between actors









c) Graph of order 2 divergences between actors

The graph of divergences between actors, maps the actors of order 2 with respect to their divergences (data in matrices 2DAA). It helps to identify potential alliances and conflicts.

Weakest divergences Weak divergences Weak divergences Moderate divergences Strong divergences Strongest divergences

3. <u>Order 3 Divergence</u>

a) Weighted valued divergence matrix (3DAA)

The weighted valued matrix of divergences or weighted valued Divergences Actors X Actors (3DAA) is related to the weighted valued position matrix Actors X Objectives (3MAO). It identifies for each couple the average divergence intensity for those two actors who do not hold the same position (one actor is pro the objective and the other is against it). The values of this Matrix measure the conflict intensity with, for every couple, their objectives hierarchies (preferences) and their competitiveness. This is a symmetrical matrix.









3DAA	konkurfozd	input	uzletkot	maskonk	hatosagos	kollga	jogalkot	vendlat	turszerv	vendeg	media	finance	
konkurfozd	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
input	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0]
uzletkot	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1
maskonk	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0]
hatosagos	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0]
kollga	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0]_
jogalkot	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	© LIPSOR-
vendlat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PS
turszerv	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
vendeg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0]₽
media	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	₽
finance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	EPITA-MAC
Number of divergences	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	STOR
Degree of divergence (%)	0.0												Ď

The values represent the degree of divergence: the higher the intesity, the more actors have diverging interests

b) Map of order 3 divergences between actors

This maps the actors' positions according to their valued divergences (data found in Matrix 3DAA). That is, the further apart actors are to each other, the more their divergence is intense.

turszerv maskonk kollga vendlat finance hatosagos input input jogalkot media

Map of order 3 divergences between actors









c) Graph of order 3 divergences between actors

The graph of divergences between actors, maps the actors of order 3 with respect to their divergences (data in matrices 3DAA). It helps to identify potential alliances and conflicts.

Weakest divergences Weak divergences Weak divergences Moderate divergences Strong divergences Strong divergences Strong divergences

5. ACTOR AMBIVALENCE

1. Actor's ambivalence matrix

Two actors can share both converging and diverging positions on different objectives. Hence, we call this couple of actors ambivalent. If they wish to become allies, they have to work only on those common objectives, and put aside their diverging objectives. Actor ambivalence is calculated with three equilibrium indicators using their simple, valued, then valued and weighted positions.

	EQ[1]	EQ[2]	EQ[3]	
konkurfozd	0.0	0.0	0.0	
input	0.0	0.0	0.0	
uzletkot	0.0	0.0	0.0	
maskonk	0.0	0.0	0.0	
hatosagos	0.0	0.0	0.0	0
kollga	0.0	0.0	0.0	2
jogalkot	0.0	0.0	0.0	בְּ
vendlat	0.0	0.0	0.0	모
turszerv	0.0	0.0	0.0	Ŧ
vendeg	0.0	0.0	0.0	Ž
media	0.0	0.0	0.0	© LITUOX-ETT A-MACTOX
finance	0.0	0.0	0.0	۲

This indicator varies from 1 (very ambivalent actors) to 0 (not ambivalent actors).









2. <u>Histogram of actor's ambivalence</u>

This histogram is produced from the actor ambivalence vector.

Histogram of actor's ambivalence

		٦.
versenytarsak	0	
beszallito	0	
uzletkoto	0	
maskonkur	0	
hatosag	0	
kollegak	0	
jogszabalkoto	0	
vendeglato	0	
turizmus	0	0
vevo	0	1700
medioumok	0	© LIPSOR-EPILA-MACTOR
puszfere	0	*MAC
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6. NET DISTANCE BETWEEN OBJECTIVES

1. <u>Map of net distances between objectives</u>

This map is used to identify objectives on which actors take the same position (either pro or against). It hence enables to isolate groups of objectives where there is a strong convergence (when objectives are close together) or divergence (when objectives are far apart) on the part of actors' opinion. It also maps objectives with respect to the net scale (the difference between the valued convergence matrix and the valued divergence matrix, respectively 2COO and 2DOO).

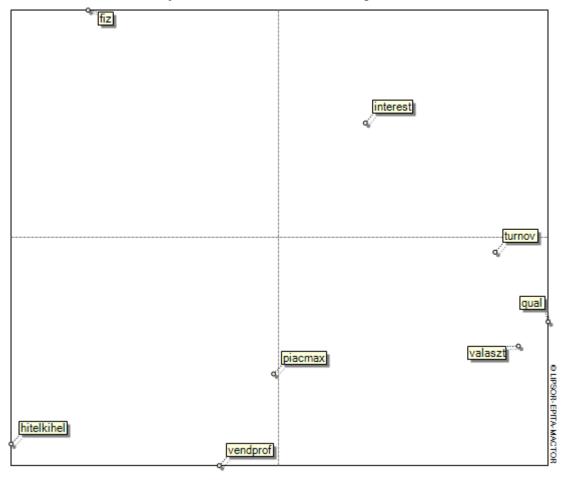








Map of net distances between objectives



2. <u>Graph of net distances between objectives</u>

This graph is used to identify objectives on which actors take the same position (either pro or against). The stronger the link between objectives, the higher the convergence of actors' opinions on these objectives.

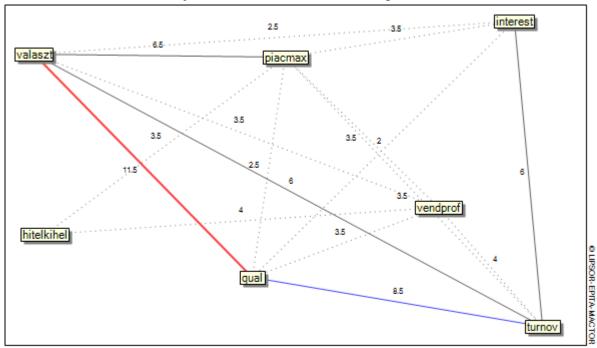








Graph of net distances between objectives



- · · · Shortest net distances
 - Short net distances
- Moderate net distances
- Long net distances
- Longest net distances

7. NET DISTANCES BETWEEN ACTORS

1. <u>Map of net distances between actors</u>

The map of net distances between actors is used to recognise potential alliances while taking into account divergences and convergences between actors of order 2.

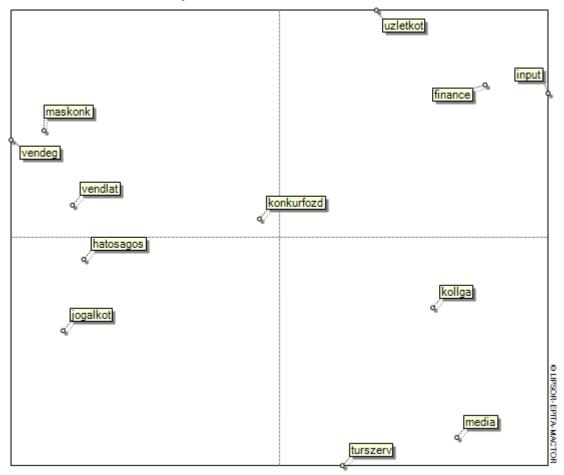








Map of net distances between actors



2. Graph of net distances between actors

The graph of net distances between actors is used to recognise potential alliances while taking into account divergences and convergences between actors of order 2.

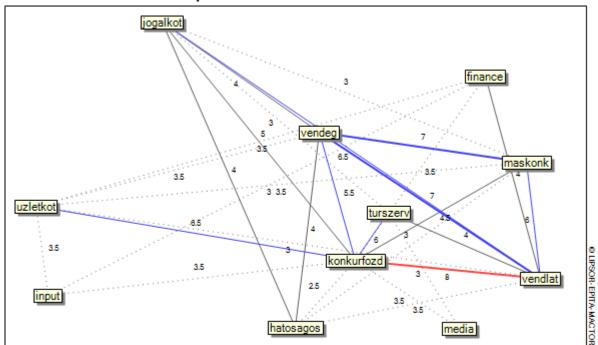








Graph of net distances between actors



- · · · Shortest net distances
- Short net distances
- Moderate net distances
- Long net distances
 Longest net distances







