TRIZ Contradiction Matrix

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Improved, enlarged, lengthened attribute \ Altered, reduced, worsened attribute	1. Weight of a moving object	2. Weight of a stationary object	3. Length of a moving object	4. Length of a stationary object	5. Area of a moving object	6. Area of a stationary object	7. Volume of a moving object	8. Volume of a stationary object	9. Speed	10. Force	11. Stress or pressure	12. Shape	13. Stability of an object's composition	14. Strenght	15. Durability of a moving object	16. Durability of a stationary object	17. Temperature	18. Illumination intensity	19. Energy use by a moving object	20. Energy use by a stationary object	21. Power	22. Loss of energy	23. Loss of substance	24. Loss of information	25. Loss of time	26. Quantity of substance / matter	27. Reliability	28. Measurement accuracy	29. Production precision	30. External effects harming an object	31. Harmful factors generated by the object	32. Ease of production	33. Ease of operation	34. Ease of repair	35. Adaptability or versatility	36. Complexity in structure	37. Complexity in measuring and monitoring	38. Extent of automation	39. Productivity
1. Weight of a moving object			8, 15, 29, 34		17, 29, 34, 38		2, 28, 29, 40		2, 8, 15, 38	8, 10, 18, 37	10, 36, 37, 40	11, 14, 35, 40	1, 19, 35, 39	18,27, 28,40	5, 31, 34, 35		4,6, 20, 38	12, 31, 34, 35			12, 18, 31, 36	2, 6, 19, 34	3, 5, 31, 35	10, 24, 35	10, 20, 28, 35	6,18, 26,31	1,3,11, 27	26,27, 28,35	18, 26, 28, 35	18, 21, 22, 27	22,31 35,39	1,27, 28,36	2,3,24, 35	2,11, 27,28	5, 8, 15, 29	26, 30, 34, 36	26, 28, 29, 32	18, 19, 26, 35	3, 24, 35, 37
2. Weight of a stationary object				1, 10, 29, 35		2, 13 30, 35		2, 5, 14, 35		8, 10, 19, 35	10, 13, 18, 29	10, 13 14, 29	1, 26, 39, 40	2,10, 27,28	19	2, 6, 19, 27	19, 22, 28, 32	19, 32, 35		1, 18 19, 28	19, 22	15, 18, 19, 28	5, 8, 13, 30	10, 15, 35	10, 20, 26, 35	6,18, 19,26	3,8,10, 28	18,26, 28	1, 10 17, 35	2, 19, 22, 37	1,22 35,39	1,9,...	1,6,13 32	2,11, 27,28	15,19 29	1, 10, 39	15, 17, 28	2, 26, 35	1, 15, 28, 35
3. Length of a moving object	8, 15, 29, 34				4, 15, 17		4, 7, 17, 35		4, 8, 13	4, 10, 17	1, 8, 35	1, 8, 10, 29	1, 8, 15, 34	8,29, 34,35			10, 15, 19	8, 24, 35			1, 35	2, 7, 35, 39	4, 10, 23, 29	1, 24	2, 15, 29	29, 35	10,14, 29,40	4,28, 32	10, 28, 29, 37	1, 15, 17, 24	15,17	1,17, 29	4,15, 29,35	1,10, 28	1,14, 15,16	1,19, 24, 26	1,24, 26,35	16, 17, 24, 26	4, 14, 28, 29
4. Length of a stationary object		29, 35, 40				7, 10, 17, 40		2, 8, 14, 35		10, 28	1, 14, 35	7, 13, 14, 15	35, 37, 39	14,15, 26,28		1, 35, 40	3, 18, 35, 38	3, 25			8, 12	6, 28	10, 24, 28, 35	24, 36	14, 29, 30		15,28, 29	3,38, 32	2, 10, 32	1, 18		15,17, 27	2,25	3	1,35	1, 26	26		7, 14, 26, 30
5. Area of a moving object	2, 4, 17, 29			4, 14, 15, 18			47, 14, 17		4, 29, 30, 34	2, 19, 30, 35	10, 15, 28, 36	4, 5, 29, 34	2, 11, 13, 39	3,14,15, 40	3, 6		2, 15, 16	13, 15, 19, 32	19, 32		10, 18, 19, 32	15, 17, 26, 30	2, 10, 35, 39	26, 3	4, 25	6,13, 29,30	9,29	3,26, 28,32	2, 32	1, 22, 28, 33	2,17, 18,39	1,13, 24,26	13,15, 16,17	1,10, 13,17	15,30	1, 13, 14	2, 18, 26, 36	14, 23, 28, 30	2, 10, 26, 34
6. Area of a stationary object		2, 14, 18, 30		7, 9, 26, 39						1, 18, 35, 36	10, 15, 36, 37		2, 38	40		2, 10, 19, 30	35, 38, 39				17, 32	7, 17, 30	10, 14, 18, 39	16, 3	4, 10, 18, 35	2, 14,18, 40	4,32, 35,40	3,26, 28,32	2, 18, 29, 36	1,22,40	16,40	4,16	16	15,16	1, 18, 36	2, 26, 30, 35	23	7, 10, 15, 17
7. Volume of a moving object	2, 26, 29, 40		1, 4, 7, 35		1, 4, 7, 17				4, 29, 34, 38	15, 35, 36, 37	6, 35, 36, 37	1, 4, 15, 29	1, 10, 28, 39	7,9,14, 15	4, 6, 35		10, 18, 34, 39	2, 10, 13	35		6, 13, 18, 35	7, 13, 15, 16	10, 34, 36, 39	2, 22	2, 6, 10, 34	7,29,30	1,11, 14,40	25,26, 28	2, 16, 25, 28	21, 22, 27, 35	1,17,40	1,29,40	12,13, 15,30	10	15,29	1, 26	4, 26, 29	16, 24, 34, 35	2, 6, 10, 34
8. Volume of a stationary object		10, 14, 19, 34	14, 19	2, 8, 14, 35						2, 18, 37	24, 25	2, 7, 35	28, 34, 35, 40	9,14,15, 17		34, 35	4, 6, 35				6, 30		10, 34, 35, 39		16, 18, 32, 35	3, 35	2, 16, 35		10, 25, 35	19, 27, 34, 39	4,18, 30,35	35			1	1, 31	2,17, 26		10, 35, 37
9. Speed	2, 13, 28, 38		8, 13, 14		29, 30, 34		7, 29, 34			13, 15, 19, 28	6, 18, 38, 40	15, 18, 34, 35	1, 18, 28, 33	3,8,14, 26	3, 5, 19, 35		2, 28, 30, 36	10,13, 19	8, 15, 35, 39		2, 19, 35, 38	14, 19, 20, 35	10, 13, 28, 38	13, 26		18,19 29,38	11, 27, 28, 35	1, 24, 28, 32	1, 25, 28, 32	1, 23, 28, 35	2,21, 24,35	1,8,13, 35	12,13, 28,32	2,27, 28,34	10,15, 26	4, 10, 34	3, 16, 27,34	10, 18	
10. Force	1, 8, 18, 37	1, 13, 18, 28	9, 17, 19, 36	10, 28	10, 15, 19	1, 18, 36, 37	9, 12, 15, 37	2, 18, 36, 37	12, 13, 15, 28		11, 18, 21	10, 34, 35, 40	10, 21, 35	10,14, 27,35	2, 19.		10, 21, 35		10, 17, 19	1, 16, 36, 37	18, 19, 35, 37	14, 15	5, 8, 35, 40		10, 36, 37	14,18, 29,36	3, 13, 21, 35	10, 23, 24, 35	28, 29, 36, 37	1, 18, 35, 40	3,13, 24,36	1,15,18 37	1,3,25, 28	1,11, 15	15,17, 18,20	10, 18, 26, 35	10, 19, 36, 37	2, 35	3,28, 35,37
11. Stress or pressure	10, 36, 37, 40	10, 13, 35, 37	10, 35, 36	1, 14, 16, 35	10, 15, 25, 36	10, 15, 35, 37	6, 10, 35	24, 35	6, 35, 36	21, 35, 36		4, 10, 15, 35	2, 33, 35, 40	3,9,18, 40	3, 19, 35, 39		2, 19, 35, 39		10, 14, 24, 37		10, 14, 35	2,25, 28, 36	3, 10, 36, 37		4 36, 37	10,14, 36	10, 13, 19, 35	6, 25, 28	3, 35	2, 22, 37	2,18, 27,33	1,16,35	11	2	35	1, 19, 35, 38	2, 36, 37	24, 35	10, 14, 35, 37
12. Shape	8, 10, 29, 40	3, 10, 15, 26	3, 5, 29, 34	4, 5, 29, 34	7, 10, 13, 14	4, 6, 10, 34		4, 14, 15, 22	2, 7, 35	15, 19, 34, 35	10, 35, 37, 40	10, 14, 15, 34	1, 4, 18, 33	10,14, 30,40	9, 14, 25, 26		14, 19, 22, 32	13,15, 32	2, 6, 14, 34		2, 4, 6	14	3, 5, 29, 35		10, 14, 17, 34	22, 36	10, 16, 40	1, 28, 32	30, 32, 40	1, 2, 22, 35	1,35	1,17, 28,32	15,26, 32	1,2,...	1, 15, 29	1, 16, 28, 29	13, 15, 39	1, 15, 32	10, 17, 26, 34
13. Stability of an object's composition	2, 21, 35, 39	1, 26, 39, 40	1, 13, 15, 28	37	2, 1	39	10, 19, 28, 39	28, 34, 35, 40	15, 18, 28, 33	10, 16, 21, 35	2, 35, 40	1, 4, 18, 22		9,15,17	10, 13, 27, 35	3, 23, 35, 39	1, 32, 35	3,15, 27, 32	13, 19	4, 18, 27, 29	27, 31, 32, 35	2, 6, 14, 39	2, 14, 30, 40		27, 35	15, 32, 35		13	18	18, 24 30, 35	27,35, 39,40	10,35	30,32, 35	2,10, 26,35	2,30, 34,35	2,22, 26, 35	22, 23, 35, 39	1, 8, ...	3, 23, 35, 40
14. Strenght	1, 8, 15, 40	1, 26, 27, 40	1, 8, 15, 35	14, 15, 26, 28	3, 29, 34, 40	4, 19 35, 40	9, 28, 14, 15	9, 14, 15, 17	8, 13, 14, 26	7, 10, 14, 18	35	10, 30, 35, 40	13, 17, 35		3, 26, 27		10, 30, 40	19, 35	10, 19, 35	35	10, 26, 28, 35	35	28, 31, 35, 40		3, 10, 28, 29	10, 27, 29	3, 11	3, 26, 27	3, 27	1, 18, 35, 37	12,2,15 22,35	3,10, 32,40	2,28, 32,40	3,11,27	3,15, 22,35	2, 13, 28, 35	15	10, 14, 29, 35
15. Durability of a moving object	5, 19, 31, 34		2, 9, 19		3, 17, 19		2, 10, 19, 30		3, 5, 35	2, 16, 19	3, 19, 27	14, 25, 26, 28	3, 13, 35	3, 10, 27			19, 35, 39	2, 4, 19, 35	6, 18, 28, 35		10, 19, 35, 38		3, 18, 27, 28	10	10, 18, 20, 28	3,10, 35,40	2, 11, 13	3	3, 16, 27, 40	15, 22, 28, 33	16,21, 22,39	1,4,...	12,27	10,27, 29	1,13, 35	4, 10, 15, 29	19, 29 35, 39	6, 10	14, 17, 19, 35
16. Durability of a stationary object		8, 16, 19, 27		1, 10, 35				34, 35, 38					3, 23, 35, 39				18, 19, 36, 40				16		16, 18, 27, 38	10	10, 16, 20, 28	3, 31, 35	6, 27, 34, 40	10, 24, 26		1, 17, 33, 40	22	10,35	1	1	2		8, 25, 34,35	1	10, 16, 20, 38
17. Temperature	6, 22, 36, 38	22, 32, 35	9, 15, 19	9, 15, 19	3, 18, 35, 39	35, 38	18, 34, 39, 40	4, 6, ...	2, 28, 30, 36	3, 10, 21, 35	2, 19, 35, 39	14, 19, 22, 32	1, 32, 35	10, 22, 30, 40	13, 19, 39	18, 19, 36, 40		16, 21, 30, 32	3,15, 17,19		2, 14, 17, 25	17, 21, 35, 38	21, 29, 31, 36		18, 21, 28, 35	3, 17, 30, 39	3, 10, 19, 35	19, 24, 32	24	2, 22, 33, 35	2,22, 24,35	26,27	26,27	4,10, 16	2,18, 27	2, 16, 17	3, 27, 31, 35	2, 16, 19, 26	15, 28, 35
18. Illumination intensity	1, 19, 32	2, 32, 35	16, 19, 32		19, 26, 32		2, 10, 13		10, 13, 19	6, 19, 26		30, 32	3, 27, 32	19, 35	2, 6, ...		19, 32, 35		1, 19, 32	1, 15, 32, 35	32	1, 6, 16,19	1, 13	1, 16	1, 17, 19, 26		11, 15, 32	3, 32	15, 19	19,32, 35,39	19,26, 28,35	19,26, 28,35	13,15, 16,17	1,15, 19	6, 13, 32	15, 32	2, 10, 26	2, 16, 25	
19. Energy use by a moving object	12, 18, 28, 32		12, 28		15, 19, 25		13, 18, 35		8, 15, 35	2, 16, 21, 26	14, 23, 25	2, 12, 29	13, 17, 19, 24	5, 9, 19, 35	6, 18, 28, 35		3, 14, 19, 24	2,15, 19			6, 18, 19, 37	12, 15, 22, 24	5, 18, 24, 35		18, 19, 35, 38	16, 18, 23, 34	11, 19, 21, 27	1, 3, ...		1,6, 27, 35	26, 28,30	26,28, 30	19,35	1,15, 17,28	13,15, 16,17	2, 27, 28, 29	35, 38	2, 32	12,28, 35
20. Energy use by a stationary object		6, 9, 19, 27								36, 37			4, 18, 27, 29	35				2, 19, 32, 35					18, 27 28, 31			3, 31, 35	10, 26, 36				2, 10, 22, 37	18, 19, 22	1,4					16, 19, 25, 35		1, 6
21. Power	8, 31, 36, 38	17, 19, 26,...	1, 10, 35, 37		19, 38	13, 17, 32, 38	6, 35, 38	6, 25, 30	2, 15, 35	2, 26, 35, 36	10, 22, 35	2, 14, 29, 40	15, 31, 32, 35	10, 26, 28	10, 19, 35, 38	16	2, 15, 17, 25	6, 16, 19	6, 16, 19, 37			10, 35, 38	18, 27 38, 38	19	6, 10, 20, 35	4, 19, 34	19, 24, 26, 31	2, 15, 32	2, 32	2, 19, 22, 31	2,18, 35	10,26, 34	34	10,26, 35	2,10, 34,35	17,19, 34	19, 20, 30, 35	16, 19, 35	2, 17, 28	28, 34, 5
22. Loss of energy	6, 15, 19, 28	6, 9, 18, 19	2, 6, 7, 13	6, 7, ...	15, 17, 26, 30	7, 17, 18, 30	7, 18, 23	7	16, 35, 38	36, 38		2, 6, 14, 39	26		7, 19, 38	18	7, 19, 35	1, 13, 15, 32			3, 38		2, 27, 35, 37	10, 19	7, 10, 18, 32	7, 18, 25	10, 11, 35	32	32	2, 21, 22, 35	2,21, 22,35	2,21, 22,35	1,22,35	2,19	2,19	3, 23	3, 15, 23, 35		10, 28, 29, 35
23. Loss of substance	6, 23, 35, 40	6, 22, 32, 35	10, 14, 29, 39	10, 24, 28	2, 10, 31	10, 18, 31	1, 29, 30, 36	3, 10, 31, 39	10, 13, 28, 38	14, 15, 18, 40	3, 10, 36, 37	3, 5, 29, 35	2, 14, 30, 40	28, 31, 35, 40	3, 18, 27, 28	16, 18, 27, 38	21, 31, 36, 39	1, 6, ...	5, 18, 24, 35	12, 27, 28, 31	18, 27, 28, 38	10, 27, 31, 35			10, 15, 18, 35	3, 6, 10,24	10, 29, 35, 39	16, 18, 31, 34	10, 24, 31, 35	22, 30, 33, 40	1,10, 29,34	15,33, 34	2,24, 28,32	2,27, 34,35	2,10, 15	10, 24, 28, 35	10, 13, 18, 35	10, 18, 35	2, 23, 28, 35
24. Loss of information	10, 24, 35	5, 10, 35		1, 26	26	26, 30	16, 30	2, 22	26, 32						10		10	19			10, 19	10, 19			24, 26, 28, 32	24, 28, 35	10, 23, 28			1, 10, 22	10,21, 22	32	22,27					33, 35	35	13, 15, 23
25. Loss of time	10, 20, 35, 37	5, 10, 20, 26	2, 15, 29	5, 14, 29, 34	4, 5, 16, 26	4, 10, 17, 35	2, 5, 10, 34	16, 18, 32, 35		5, 10, 36, 37	4, 36, 37	4, 10, 17, 34	3, 5, 22, 35	3, 18, 28, 29	10, 18, 20, 28	10, 16, 20, 28	18, 21, 29, 35	1, 17, 19,26	18, 19, 35, 38	1	6, 10, 20, 35	5, 10, 18, 32	10, 18, 24, 35, 39	24, 26, 28, 32	16, 18, 35, 38	4, 10, 30	24,28, 32,34	18,24, 26,28	18, 34, 35	18,22, 35,39	4,28, 34,35	4,10, 28,34	1,10, 32	28,35	6, 29	10, 18, 24, 28, 32	24, 28, 35	1,10, 32
26. Quantity of substance / matter	6, 18, 31, 35	1, 16, 27,...	3, 18, 29, 35		14, 15, 18, 40	2, 4, 18, 40	35, 15, 20, 29		28, 29, 34, 35	3, 14, 36	10, 14, 36	14, 35	2, 15, 17, 40	10, 14, 34, 35	3, 10, 35, 40	3, 31, 35, 39		16, 18, 29, 34	3, 31, 35		35	7, 18, 25	3, 8, 28, 35	16, 18, 35, 38		3, 18, 28, 40	2,13,28	30,33	3,35, 33, 35	1,27, 39,40	10,25, 29,35	2,10, 25,32	3,15, 35	3, 10, 13, 27	3, 18, 27, 29	3, 13, 27, 35	
27. Reliability	3, 8, 10, 40	3, 8, 10, 28	4, 9, 14, 15	11, 15, 28, 29	10, 14, 16, 17	4, 32, 35, 40	3, 10, 14, 24	2, 24, 35	11, 21, 28, 35	3, 8, 10, 28	10, 19, 24, 35	1, 11, 16, 35		11, 28	2, 3, 25, 35	6, 27, 34, 40	3, 10, 35	11, 13, 32	11, 19, 21, 27	23, 36	11, 21, 26, 31	10, 11, 35	10, 29, 35, 39	10, 28	4, 10, 28	3, 21, 40		3,11,23	1,11,32	2, 27, 35, 40	2,26, 35, 40		17,27, 40	1,11	8,13, 24, 35	1, 13, 35	27, 40,	11, 13, 27	1, 29, 35, 38
28. Measurement accuracy	26, 28, 32, 35	25, 26, 28, ...	5, 16, 26, 28	3, 16, 26, 28, 32	3, 26, 28, 32	3, 26, 28, 32	6, 13, 32		13, 24, 28, 32	2, 32	6, 28, 32	6, 28, 32	13, 32, 35	6, 28, 32	6, 28, 32	10, 24, 26	6, 19, 24, 28	1, 6, ...	3, 6, ...		3, 6, ...	26, 27, 32	10, 16, 28, 31		24, 28, 32, 34	2, 6, ...	1, 5, 11, 23		22, 24, 26, 28	3, 10, 33, 39	6, 18, 25, 35	1, 13, 17, 34	1, 11, 13, 32	2, 13, 35	10, 27, 34	24, 26, 28, 32	2, 10, 28, 34	10, 28, 32, 34
29. Production precision	3, 18, 28, 32	9, 27, 28, 35	10, 28, 29, 37	2, 10, 32	28, 29, 32, 33	2, 18, 29, 36	2, 28, 32	10, 25, 35	10, 28, 32	18, 28, 34, 36	3, 35	30, 32, 40	18, 30	3, 27	3, 27, 40		19, 26	3, 32	2, 32		2, 32	2, 13, 32	10, 24, 31, 35		18, 26, 28, 32	10, 30, 32	1, 11, 32			10, 26, 28, 36	4, 17, 26, 34		1, 23, 32, 35	10, 25		2, 18, 26		18, 23, 10, 18, 26, 28	3, 10, 28, 32
30. External effects harming an object	21, 22, 27, 39	2, 13, 22, 24	1, 4, 17, 39	1, 18	1, b22, 28, 33	2, 27, 35, 35	22, 23, 35, 37	19, 27, 34, 39	21, 22, 28, 35	13, 18, 35, 39	2, 22, 37	1, 3, 22, 35	18, 24, 30, 35	1, 18, 35, 37	15, 22, 28, 38	1, 17, 33, 40	2, 22, 33, 35	1, 13, 19, 32	1, 6, 24, 27	2, 10, 22, 37	2, 19, 22, 31	2, 21, 22, 35	19, 22, 33, 40	2, 10, 22	18, 34, 35	1, 3, 24, 39	2, 24, 27, 40	23, 26, 28, 33	10, 18, 26, 28		2, 24, 34	2, 25, 28, 39	2, 10, 35	11, 22, 31, 35	19, 22, 29, 40	19, 22, 29, 40	3, 33, 24, 35	13, 22, 24, 35
31. Harmful factors generated by the object	15, 19, 22, 39	13, 22, 35, 39	15, 16, 17, 22		2, 17, 18, 39	1, 22, 40	2, 17, 40	4, 18, 30, 35	3, 23, 28, 35	1, 28, 35, 40	2, 18, 27, 33	1, 35	27, 35, 39, 40	2, 15, 22, 35	15, 22, 31, 33	16, 21, 22, 39	2, 22, 25, 35	19, 24, 32, 39	2, 6, ...	18, 19, 22	35	1, 10, 21, 29	1, 3, 24, 39	2, 24, 39, 40	3, 26, 28, 33	4, 17, 26, 34										1, 19, 31	1, 2, 21, 27		18, 22, 35, 39
32. Ease of production	15, 16, 28, 29	1, 13, 27, 36	1, 13, 17, 29	15, 17, 27	1, 12, 13, 26	16, 4	1, 13, 29, 40	35	1, 8, 13, 35	12, 35	1, 10, 35, 37	1, 13, 27, 28	1, 11, 13	1, 3, 10, 32	1, 35	16, 35	18, 26, 27	1, 24, 27, 28	1, 26, 27, 28	1, 4	1, 12, 24, 27	19, 35	15, 33, 34	16, 18, 24, 32	4, 28, 34, 35	1, 23, 24, 35		1, 12, 18, 35		2, 24			2, 5, 13, 16	1, 9, 11, 35	2, 13, 15	1, 26, 17	1, 6, 11, 28	1, 8, ...	1, 10, 28, 35
33. Ease of operation	2, 13, 15, 25	1, 6, 13, 25	1, 12, 13, 17		1,13,16, 17	15, 16, 17, 18, 39	1, 15, 16, 35	4, 18, 31, 39	13, 18, 34	13, 28, 35	2, 12, 32	15, 28, 29, 34	30, 32, 35	3, 28, 32, 40	3, 8, 25, 29	1, 16, 25	13, 26, 27	1, 13, 17, 24	1, 13, 24		2, 10, 34	2, 13, 19	2, 24, 28, 32	4, 10, 22, 27	4, 10, 28, 32	12, 35	8, 17, 27, 40	2, 23, 25, 34	1, 23, 32, 35	2, 25, 28		2, 5, ...		1, 12, 28, 32	1, 15, 16, 34	12, 17, 26		1, 3 , 12, 34	1, 15, 28
34. Ease of repair	2, 11, 27, 35	2, 11, 27, 35	1, 10, 25, 28	3, 18, 31	13,15, 32	16, 25	2, 11, 25, 35	1	9, 34	1, 10, 11	12, 35	1, 2, 4, 13	2, 35	1, 2, 9, 11	11, 27, 28, 29	1	4, 10	1, 13, 15	1, 15, 16, 28		2, 10, 15, 32	1,15, 19, 32	2, 27, 34, 35		1, 10, 25, 32	2, 10, 25, 28	1,10, 11, 16	13	10, 25	2, 10, 16, 35		1, 10, 11, 35	1, 12, 15, 26		1, 4, 7, 16	1, 11, 13, 35		7, 13, 34, 35	1, 10, 34, 35
35. Adaptability or versatility	1, 6, 8, 15	15, 16, 19, ...	1, 2, 29, 35	1, 16, 35	7,29, 30, 35	15, 16	15, 29, 35		10, 14, 35	10, 28, 35	16, 26	1, 19, 35	16, 35	1, 8, 15, 37	14, 30, 35	3, 6, 32, 35	1, 13, 35	1, 16, 22, 26	13, 19, 29, 35		1, 19, 29	2, 15, 18	3, 10, 13, 15	8, 13, 24, 35	28, 35	3, 15, 35	8, 13, 24, 35	1, 5, 10, 35	1, 13, 31	11, 31, 32, 35	1, 4, 7, 16	1, 13, 31	1, 15, 16, 34	1, 4, 7, 16		15, 28, 29, 37		27, 34, 35	6, 28, 35, 37
36. Complexity in structure	26, 30, 34, 36	2, 35, 36, 39	1, 19, 24, 26		1,13,14, 16	6, 36	6, 25, 34	1, 16	10, 28, 34	10, 26, 16	1, 19, 35	13, 15, 28	2, 17, 19, 22	2, 13, 28	4, 10, 15, 28		2, 13, 17	13, 17, 24	2, 27, 28, 29		19, 20, 30, 34	13, 15, 19, 35	10, 28, 29, 35		6, 29	3, 10, 13, 27	1, 13, 35	2, 10, 26, 34	24, 26, 32	19, 22 29, 40		1, 13, 26, 27	2, 5	12, 26	1, 15	10, 15, 28, 37		10, 15, 28, 37	1, 25, 34	12, 17, 28
37. Complexity in measuring and monitoring	13, 26, 27, 28	1, 6, 13, 28	16, 17, 24,26		2,13,15, 17	2, 16, 30, 39	1, 4, 16, 29	2, 18, 26, 31	3, 4, 16, 35	19, 28, 36, 40	32, 35, 36, 37	1, 13, 27, 39	11, 22, 30, 39	3, 15, 27, 28	19, 25, 29, 39	6, 24, 25, 35	3, 16, 27, 35	2, 24, 26	35, 38	16, 19, 35	1, 10, 16, 19	3, 15, 19, 35	1, 10, 13, 24	22, 27, 33, 35	9, 18, 28, 32	3, 18, 27, 29	8, 27, 28, 40	24, 26, 28, 32		19, 22 28, 29	2, 21	5, 11, 28, 29	2, 5	12, 26	1, 15	10, 15, 28, 37		21, 34	18, 35
38. Extent of automation	18, 26, 28, 35	10, 26, 28, ...	13,14, 17,28	23	13,14,17		13, 16, 35		10, 28	2, 35	13, 35	1, 13, 15, 32	1, 18	13, 25	6, 9		2, 19, 26	8, 19, 32	2, 13, 32		2, 27, 28	23, 28	5, 10, 18, 35	33, 35	24, 28, 30, 35	13, 35	11, 27, 32	10, 26, 28, 34	18, 23, 26, 28	2, 33	2	1, 13, 26	1, 3, 12, 34	1, 13, 35	1, 4, 27, 35	10, 15, 24	25, 27, 34		5, 12, 26, 35
39. Productivity	24, 26, 35, 37	3, 15, 35, 37	4,18, 28,38	7,14, 26,30	10,26, 31,34	7, 10, 17,35	2,6,10, 34	2, 10, 35, 37		10, 15, 28, 36	10, 14, 37	10, 14, 34,40	3, 22, 35, 39	10, 18, 28, 29	2, 10, 18, 35	10, 16, 20, 38	10, 21, 28, 35	1, 17, 19, 26	10, 19, 35, 38	1	10, 20, 35	10, 28, 29, 35	10, 23, 28, 35	13, 15, 23		35, 38	1, 10, 35, 38	1, 10, 28, 34	1, 10 18, 32	13, 22, 24, 35, 39	18, 22, 35, 39	2, 24, 28, 35	1, 7, 19, 28	1, 10, 25, 32	1, 28, 35, 37	12, 17, 24, 28	2, 18, 27, 35	8, 12, 26, 35