A questionnaire on Europe in the 2050s

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Scenarios questionnaire

Your task:

- To consider the current state of the society, economy and environment in Europe
- To think about plausible developments of these by the 2050s
- To assign subjective probabilities to different outcomes





Scenarios questionnaire

Some rules:

- Anonymous
- Please complete this <u>here and now</u>
- No conferring with your neighbour
- Please respond to <u>all</u> questions even if you think you know nothing about the measures listed
- Please hand in the questionnaire to me <u>before</u> the lecture (in approx. 30 mins)





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AVEC 2050 Scenarios questionnaire. Are you based north or south of latitude 47.5°N? Vienna ???

Please enter your estimate of the percentage likelihood of each outcome listed occurring by 2050 for the factors described (integer values between 0 and 100%). Check that the sum of the likelihoods in each row is 100%.

described (integer values	between	o and 100	%0). Crec	k uiai uii	e sum or u	ле пкеш	iooas m ea	ach row E	\$ 100%0.	
		Popu	ılation of H	Europe (505	million in	1995)				
Population (million)	< 405	405-430	430-455	455-480	480-505	505-530	530-555	555-580	580-605	> 605
Likelihood of occurrence (%)										
	•	•	•	•	•	•	•	•	•	•
Gross Dome										
OECD Europe (thousand US\$)	< 23.6	23.6-28.6	28.6-33.6	33.6-38.6	38.6-43.6	43.6-48.6	48.6-53.6	53.6-58.6	58.6-63.6	> 63.6
Likelihood of occurrence (%)										
Eastern Europe (thousand US\$)	< 2.8	2.8-7.8	7.8-12.8	12.8-17.8	17.8-22.8	22.8-27.8	27.8-32.8	32.8-37.8	37.8-42.8	> 42.8
Like lihood of occurrence (%)										
_										
		missions of								
Change in SO ₂ emissions (%)	< -80	-8060	-6040	-4020	-20 - 0	0 - 20	20 - 40	40 - 60	60 - 80	> 80
Like lihood of occurrence (%)										
Change in NO, emissions (%)	< -80	-8060	-6040	-4020	-20 - 0	0 - 20	20 – 40	40 - 60	60 - 80	> 80
Like lihood of occurrence (%)										
		Chang	e in Furon	ean land ue	se (relative	to 1005)				
Change in agricultural area (%)	< -20		-1510		-5 - 0	0-5	5 – 10	10 - 15	15 - 20	> 20
Like lihood of occurrence (%)		120 13	13 10	1000	-	ا ا	1	10 15	13 20	1 20
Change in urban area (%)	< -20	-2015	-1510	-105	-5 - 0	0 - 5	5 – 10	10 - 15	15 - 20	> 20
Likelihood of occurrence (%)		1 22 22	15 10		-	-	1 10	12 12	15 25	
Change in forest area (%)	< -20	-2015	-1510	-105	-5 - 0	0-5	5 – 10	10 - 15	15 - 20	> 20
Like lihood of occurrence (%)										
		-								
		Rela	tive sea-le	vel change	(relative to	2000)				
Helsinki, Finland (cm)	< -40	-4030	-3020	-2010	-10 - 0	0 - 10	10 - 20	20 - 30	30 - 40	> 40
Likelihood of occurrence (%)										
Hamburg, Germany (cm)	< -40	-4030	-3020	-2010	-10 - 0	0 - 10	10 - 20	20 - 30	30 - 40	> 40
Likelihood of occurrence (%)										
Venice, Italy (cm)	< -40	-4030	-3020	-2010	-10 - 0	0 - 10	10 - 20	20 - 30	30 - 40	> 40
Likelihood of occurrence (%)										

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		Popu	ılation of H	Europe (505	million in	1995)				
Population (million)	< 405	405-430	430-455	455-480	480-505	505-530	530-555	555-580	580-605	> 605
Likelihood of occurrence (%)										
	•	•	•	•	•	•	•	•	•	•
Gross Dome										
OECD Europe (thousand US\$)	< 23.6	23.6-28.6	28.6-33.6	33.6-38.6	38.6-43.6	43.6-48.6	48.6-53.6	53.6-58.6	58.6-63.6	> 63.6
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Like lihood of occurrence (%)										
_										
		missions of								
Change in SO ₂ emissions (%)	< -80	-8060	-6040	-4020	-20 - 0	0 - 20	20 - 40	40 - 60	60 - 80	> 80
Like lihood of occurrence (%)										
Change in NO, emissions (%)	< -80	-8060	-6040	-4020	-20 - 0	0 - 20	20 – 40	40 - 60	60 - 80	> 80
Like lihood of occurrence (%)										
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Change in agricultural area (%)	< -20		-1510		-5 - 0	0-5	5 – 10	10 - 15	15 - 20	> 20
Like lihood of occurrence (%)		120 13	13 10	1000	-	ا ا	1	10 15	13 20	1 20
Change in urban area (%)	< -20	-2015	-1510	-105	-5 - 0	0 - 5	5 – 10	10 - 15	15 - 20	> 20
Likelihood of occurrence (%)		1 22 22	15 10		1	-	1 10	12 12	15 25	
Change in forest area (%)	< -20	-2015	-1510	-105	-5 - 0	0-5	5 – 10	10 - 15	15 - 20	> 20
Like lihood of occurrence (%)										
		-								
		Rela	tive sea-le	vel change	(relative to	2000)				
Helsinki, Finland (cm)	< -40	-4030	-3020	-2010	-10 - 0	0 - 10	10 - 20	20 - 30	30 - 40	> 40
Likelihood of occurrence (%)										
Hamburg, Germany (cm)	< -40	-4030	-3020	-2010	-10 - 0	0 - 10	10 - 20	20 - 30	30 - 40	> 40
Likelihood of occurrence (%)										
Venice, Italy (cm)	< -40	-4030	-3020	-2010	-10 - 0	0 - 10	10 - 20	20 - 30	30 - 40	> 40
Likelihood of occurrence (%)										

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AVEC 2050 Scenarios questionnaire. Are you based north or south of latitude 47.5°N? ...North

Please enter your estimate of the percentage likelihood of each outcome listed occurring by 2050 for the factors described (integer values between 0 and 100%). Check that the sum of the likelihoods in each row is 100%.

											1
		Рорт	ılation of E	urope (505	million in	1995)					
Population (million)	< 405	405-430	430-455	455-480	480-505	505-530	530-555	555-580	580-605	> 605	
Like lihood of occurrence (%)	0	0	10	20	30	25	10	4	1	0	$\Sigma = 100$
			•	OFOR F	2010	о т	-	*****			
											_
	< 23.6	23.0-28.0	28.6-33.6	33.6-38.6	38.6-43.6	43.0-48.0	48.6-33.6	23.0-28.6	28.6-63.6	> 63.0	-
	- 0 0	0000	20100	100100	12000	00.0.00.0	00.000	00 0 00 0	00.0 40.0	- 40.0	_
	< 2.8	2.8-7.8	7.8-12.8	12.8-17.8	17.8-22.8	22.8-27.8	27.8-32.8	32.8-37.8	37.8-42.8	> 42.8	_
Likelihood of occurrence (%)											_
	hanga in a	micrians of	asidificina	and autom	hidna com	nounds (no	latina ta 20	1007			
Change in SO ₂ emissions (%)									160 - 80	> 80	1
Like lihood of occurrence (%)		1 33 33		10 20	20 0		120 .0	1.0 00			1
Change in NO _x emissions (%)	< -80	-8060	-6040	-4020	-20 - 0	0 - 20	20 – 40	40 - 60	60 - 80	> 80	1
Likelihood of occurrence (%)											1
` ` `											1
		Chang	e in Europ	ean land w	e (relative	to 1995)					
Change in agricultural area (%)	< -20	-2015	-1510	-105	-5 - 0	0-5	5 – 10	10 - 15	15 - 20	> 20	1
Likelihood of occurrence (%)											
Change in urban area (%)	< -20	-2015	-1510	-105	-5 - 0	0-5	5 – 10	10 - 15	15 - 20	> 20	
Likelihood of occurrence (%)											
Change in forest area (%)	< -20	-2015	-1510	-105	-5 - 0	0-5	5 – 10	10 - 15	15 - 20	> 20	
Likelihood of occurrence (%)											
Helsinki, Finland (cm)	< -40	-4030	-3020	-2010	-10 - 0	0 - 10	10 - 20	20 - 30	30 - 40	> 40	
Likelihood of occurrence (%)											
Hamburg, Germany (cm)	< -40	-4030	-3020	-2010	-10 - 0	0 - 10	10 - 20	20 - 30	30 - 40	> 40	
Likelihood of occurrence (%)		1									
Venice, Italy (cm)	< -40	-4030	-3020	-2010	-10 - 0	0 - 10	10 - 20	20 - 30	30 - 40	> 40	
Likelihood of occurrence (%)	Change in emissions of acidifying and eutrophying compounds (relative to 2000) Change in emissions of acidifying and eutrophying compounds (relative to 2000) Change in emissions of acidifying and eutrophying compounds (relative to 2000) Change in emissions of acidifying and eutrophying compounds (relative to 2000) Change in emissions of acidifying and eutrophying compounds (relative to 2000) Change in emissions of acidifying and eutrophying compounds (relative to 2000) Change in emissions of acidifying and eutrophying compounds (relative to 2000) Change in emissions (%) <-80 -80 -60 -60 -40 -4020 -20 -0 0 - 20 20 - 40 40 - 60 60 - 80 > 80 Change in European land use (relative to 1995) Change in European land use (rela			J							

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AVEC 2050 Scenarios questionnaire. Are you based north or south of latitude 47.5°N? ...North

Please enter your estimate of the percentage likelihood of each outcome listed occurring by 2050 for the factors

described (integer values between 0 and 100%). Check that the sum of the likelihoods in each row is 100%.

described (integer values)	between	0 and 100	%). Chec	k that the	sum of t	he likelih	oods in e	ach row i	s 100%.		,
		Рорз	ılation of H	Europe (505	million in	1995)					
Population (million)	< 405	405-430	430-455	455-480	480-505	505-530	530-555	555-580	580-605	> 605	1
Likelihood of occurrence (%)	0	0	10	20	30	25	10	4	1	0	Σ = 100
Gross Dom	estic Prod	uct (GDP) p	er capita (OECD Eur	оре = 2360	0: Eastern	Europe =	2800 in 199	95)		
OECD Europe (thousand US\$)	< 23.6									> 63.6	1
Likelihood of occurrence (%)											1
Eastern Europe (thousand US\$)	< 2.8	2.8-7.8	7.8-12.8	12.8-17.8	17.8-22.8	22.8-27.8	27.8-32.8	32.8-37.8	37.8-42.8	> 42.8	1
Likelihood of occurrence (%)											1
								<u>'</u>			
Change in SO ₂ emissions (%)	< -80	-8060	-6040	-4020	-20 - 0	0 - 20	20 - 40	40 - 60	60 - 80	> 80	
Likelihood of occurrence (%)											
Change in NO _x emissions (%)	< -80	-8060	-6040	-4020	-20 - 0	0 - 20	20 – 40	40 - 60	60 - 80	> 80	
Likelihood of occurrence (%)]
		Chang	e in Euron	ean land us	e (relative	to 1995)					
Change in agricultural area (%)	< -20						I5 – 10	10 - 15	115 - 20	> 20	1
Likelihood of occurrence (%)		120 10	10 10	1.0	-	-	1	1.5 .5	122		1
Change in urban area (%)	< -20	-2015	-1510	-105	-5 - 0	0-5	5 – 10	10 - 15	15 - 20	> 20	1
Likelihood of occurrence (%)											1
Change in forest area (%)	< -20	-2015	-1510	-105	-5 - 0	0-5	5 – 10	10 - 15	15 - 20	> 20	1
Likelihood of occurrence (%)											1
		Rela	ttive sea-le			2000)					
Helsinki, Finland (cm)	< -40	-4030	-3020	-2010	-10 - 0	0 - 10	10 - 20	20 - 30	30 - 40	> 40	
Likelihood of occurrence (%)]
Hamburg, Germany (cm)	< -40	-4030	-3020	-2010	-10 - 0	0 - 10	10 - 20	20 - 30	30 - 40	> 40	
Like lihood of occurrence (%)											
Venice, Italy (cm)	< -40	-4030	-3020	-2010	-10 - 0	0 - 10	10 - 20	20 - 30	30 - 40	> 40	
Like lihood of occurrence (%)	Change in emissions of acidifying and eutrophying compounds (relative to 2000) Change in emissions of acidifying and eutrophying compounds (relative to 2000) Change in European land use (relative to 1995) Change in European l										

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Please enter your estimate of the percentage likelihood of each outcome listed occurring by 2050 for the factors described (integer values between 0 and 100%). Check that the sum of the likelihoods in each row is 100%.

			,								
	Glob	al mean ann	ual CO. ce	ncentratio	m (a a at N	Jauna I oa	Hauraii)				
CO2 concentration (ppm)	< 270	270-370	370-470	470-570	570-670	670-770	770-870	870-970	970-1070	>1070	
Likelihood of occurrence (%)											
											H
		rate in north		•							
Mean winter (DJF)	< -8	-86	-64	-42	-2 - 0	0-2	2-4	4-6	6-8	> 8	
temperature change (°C)											
Likelihood of occurrence (%)	10	40 00	00 00	20 10	10.0		10 00	00 00	00 40	- 40	
Mean winter (DJF)	< -40	-4030	-3020	-2010	-10 - 0	0 - 10	10 – 20	20 - 30	30 - 40	> 40	
precipitation change (%) Like lihood of occurrence (%)					<u> </u>		1				
Mean summer (JJA)	< -8	-86	-64	-42	1-2-0	0-2	2-4	4-6	6-8	 >8	H
temperature change (°C)	1~-0	-00	-04	-42	1-2-0	0-2	2-4	4-0	0-0	-°	
Likelihood of occurrence (%)	+	1									
Mean summer (JJA)	< -40	-4030	-3020	-2010	-10 - 0	0 - 10	10 - 20	20 - 30	30 - 40	> 40	
precipitation change (%)	"	1 .0 .50	50 20	1 20 10	" "	"	1.0 20	120 50		"	
Like lihood of occurrence (%)											
, ,											L
		nate in south	ern Europ	e (south of	47.5°N) re	lative to 19	61-1990				
Mean winter (DJF)	< -8	-86	-64	-42	-2 - 0	0-2	2-4	4-6	6-8	> 8	
temperature change (°C)											
Like lihood of occurrence (%)							1				
Mean winter (DJF)	< -40	-4030	-3020	-2010	-10 - 0	0 - 10	10 – 20	20 - 30	30 - 40	> 40	
precipitation change (%)											
Likelihood of occurrence (%)	1-0	10 6	6 4	1 4 2	1 2 0	10 0	10 4	14.6	12 0	L 0	
Mean summer (JJA)	< -8	-86	-64	-42	-2 - 0	0-2	2-4	4-6	6-8	> 8	
temperature change (°C)											
Like lihood of occurrence (%) Mean summer (JJA)	< -40	-4030	-3020	-2010	-10 - 0	0 - 10	10 - 20	20 - 30	30 - 40	> 40	
precipitation change (%)	1~-40	-4030	-3020	-2010	1-10-0	0-10	10 - 20	20 - 30	30 - 40	~ 40	
Like lihood of occurrence (%)	+			-							
ETERTION OF OCCURRENCE (39)											

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Scenarios questionnaire

Good luck!

