

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 respond to <u>all</u> questions even if you think you know nothing about the measures listed
- Please complete this tonight
- No conferring with your neighbour
- You can complete it directly into an <u>Excel sheet</u> on your laptop or by hand and transfer to computer later
- Please return your completed file to me or to Rik





| Please enter y | our es | | | | | | tionnai | | d occurri | na by 2 | 2050 |
|--|---------|-----------|-----------|------------|-----------|------------|-----------|-----------|-----------|---------|--------|
| Population of Europe (505 million in 199 | | | | | | | | | | | Totals |
| Population (million) | < 405 | 405-430 | 430-455 | 455-480 | 480-505 | 505-530 | 530-555 | 555-580 | 580-605 | > 605 | |
| Likelihood of occurrence (%) | | | | | | | | | | | 0 |
| | | | | | | | | | | | |
| Gross Domestic Product (GDP) per capit | a (OECD | Europe: | = 23600; | Eastern E | urope = 2 | 2800 in 19 | 995) | | | | |
| 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 (%) | | | | | | | | | | | 0 |
| 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 | |
| Likelihood of occurrence (%) | | | | | | | | | | | 0 |
| | | | | | | | | | | | |
| Change in emissions of acidifying and e | utrophy | ng comp | ounds (re | elative to | 2000) | | | | | | |
| Change in SO ₂ emissions (%) | < -80 | -8060 | -6040 | -4020 | -20 - 0 | 0 - 20 | 20 - 40 | 40 - 60 | 60 - 80 | > 80 | |
| Likelihood of occurrence (%) | | | | | | | | | | | 0 |
| Change in NO _x emissions (%) | < -80 | -8060 | -6040 | -4020 | -20 - 0 | 0 - 20 | 20 - 40 | 40 - 60 | 60 - 80 | > 80 | |
| Likelihood of occurrence (%) | | | | | | | | | | | 0 |
| | | | | | | | | | | | |
| Change in European land use (relative t | o 1995) | | | | | | | | | | |
| Change in agricultural area (%) | < -20 | -2015 | -1510 | -105 | -5 - 0 | 0-5 | 5 - 10 | 10 - 15 | 15 - 20 | > 20 | |
| Likelihood of occurrence (%) | | | | | | | | | | | 0 |
| Change in urban area (%) | < -20 | -2015 | -1510 | -105 | -5 - 0 | 0-5 | 5 - 10 | 10 - 15 | 15 - 20 | > 20 | |
| Likelihood of occurrence (%) | | | | | | | | | | | 0 |
| Change in forest area (%) | < -20 | -2015 | -1510 | -105 | -5 - 0 | 0-5 | 5 - 10 | 10 - 15 | 15 - 20 | > 20 | |
| Likelihood of occurrence (%) | | | | | | | | | | | 0 |
| | | | | | | | | | | | |





Entries in percent

Check that total = 100

| 121 6 | | | | | | | tionnai | | | | 2050 |
|---|-----------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|---------|--------|
| Please enter Population of Europe (505 million in 199 | | timate o | t the pe | rcentage | ilkelino | OA OT EA | ich outco | me liste | a occurri | ng by z | Totals |
| Population (million) | _ | 405-430 | 430-455 | 455-480 | 480-505 | 505-530 | 530-555 | 555-580 | 580-605 | > 605 | |
| Likelihood of occurrence (%) | 0.00 | 0.00 | 5.00 | 10.00 | 20.00 | 40.00 | 20.00 | 5.00 | | | 100 |
| | | | | | | | | | | | |
| Gross Domestic Product (GDP) per cap | ita (OECI | Europe | = 23600; | Eastern E | urope = : | 2800 in 19 | 995) | | | | |
| 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 (%) | | | | | | | | | | | 0 |
| 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 | |
| Likelihood of occurrence (%) | | | | | | | | | | | 0 |
| | | | | | | | | | | | |
| Change in emissions of acidifying and o | eutrophy | | | | | | | | | | |
| Change in SO₂ emissions (%) | < -80 | -8060 | -6040 | -4020 | -20 - 0 | 0 - 20 | 20 - 40 | 40 - 60 | 60 - 80 | > 80 | |
| Likelihood of occurrence (%) | | | | | | | | | | | 0 |
| Change in NO _x emissions (%) | < -80 | -8060 | -6040 | -4020 | -20 - 0 | 0 - 20 | 20 - 40 | 40 - 60 | 60 - 80 | > 80 | |
| Likelihood of occurrence (%) | | | | | | | | | | | 0 |
| | | | | | | | | | | | |
| Change in European land use (relative | to 1995) | | | | | | | | | | |
| Change in agricultural area (%) | < -20 | -2015 | -1510 | -105 | -5 - 0 | 0-5 | 5 - 10 | 10 - 15 | 15 - 20 | > 20 | |
| Likelihood of occurrence (%) | | | | | | | | | | | 0 |
| Change in urban area (%) | < -20 | -2015 | -1510 | -105 | -5 - 0 | 0-5 | 5 - 10 | 10 - 15 | 15 - 20 | > 20 | |
| Likelihood of occurrence (%) | | | | | | | | | | | 0 |
| Change in forest area (%) | < -20 | -2015 | -1510 | -105 | -5 - 0 | 0-5 | 5 - 10 | 10 - 15 | 15 - 20 | > 20 | |
| Likelihood of occurrence (%) | | | | | | | | | | | 0 |
| | | | | | | | | | | | |





| Likelihood of occurrence (%) Gross Domestic Product (GDP) per capita ((| < 405 OECD E < 23.6 < 2.8 | 405-430 urope = 2 23.6-28.6 | 430-455 3600; East 28.6-33.6 | 455-480 tern Euro p | 480-505 ne = 2800 38.6-43.6 | 505-530 in 1995) | 530-555 | 555-580 | 580-605 58.6-63.6 | > 605 | Totals 0 |
|--|---|-----------------------------------|------------------------------------|-------------------------------|--|---------------------|-----------|-----------|----------------------|--------|-------------|
| Population (million) Likelihood of occurrence (%) Gross Domestic Product (GDP) per capita (OECD Europe (thousand US\$) Likelihood of occurrence (%) | OECD E < 23.6 < 2.8 | urope = 2 23.6-28.6 | 3600; Eas 28.6-33.6 | tern Europ 33.6-38.6 | oe = 2800 38.6-43.6 | in 1995) | | | | | 0 |
| Likelihood of occurrence (%) Gross Domestic Product (GDP) per capita (COECD Europe (thousand US\$) Likelihood of occurrence (%) | OECD E < 23.6 < 2.8 | urope = 2 23.6-28.6 | 3600; Eas 28.6-33.6 | tern Europ 33.6-38.6 | oe = 2800 38.6-43.6 | in 1995) | | | | | 0 |
| Gross Domestic Product (GDP) per capita (OECD Europe (thousand US\$) Likelihood of occurrence (%) | < 23.6 < 2.8 | 23.6-28.6 | 28.6-33.6 | 33.6-38.6 | 38.6-43.6 | | 48.6-53.6 | 53.6-58.6 | 58.6-63.6 | > 63.6 | 0 |
| OECD Europe (thousand US\$) Likelihood of occurrence (%) | < 23.6 < 2.8 | 23.6-28.6 | 28.6-33.6 | 33.6-38.6 | 38.6-43.6 | | 48.6-53.6 | 53.6-58.6 | 58.6-63.6 | > 63.6 | |
| OECD Europe (thousand US\$) Likelihood of occurrence (%) | < 23.6 < 2.8 | 23.6-28.6 | 28.6-33.6 | 33.6-38.6 | 38.6-43.6 | | 48.6-53.6 | 53.6-58.6 | 58.6-63.6 | > 63.6 | |
| Likelihood of occurrence (%) | < 2.8 | | | | | 43.6-48.6 | 48.6-53.6 | 53.6-58.6 | 58.6-63.6 | > 63.6 | _ |
|) (| | 2.8-7.8 | 7.8-12.8 | 12.8-17.8 | 47.0.00.0 | | | | | | |
| Eastern Europe (thousand US\$) | | 2.8-7.8 | 7.8-12.8 | 12.8-17.8 | 470 00 0 | | | | | | 0 |
| | | | | | 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 (%) | on bu de | | | | | | | | | | 0 |
| | o mbo sino | | | | | | | | | | |
| Change in emissions of acidifying and eutr | | | | | | | | | | | |
| Change in SO ₂ emissions (%) | < -80 | -8060 | -6040 | -4020 | -20 - 0 | 0 - 20 | 20 - 40 | 40 - 60 | 60 - 80 | > 80 | |
| Likelihood of occurrence (%) | | | | | | | | | | | 0 |
| Change in NO _x emissions (%) | < -80 | -8060 | -6040 | -4020 | -20 - 0 | 0 - 20 | 20 - 40 | 40 - 60 | 60 - 80 | > 80 | |
| Likelihood of occurrence (%) | | | | | | | | | | | 0 |
| | | | | | | | | | | | |
| Change in European land use (relative to 19 | 995) | | | | | | | | | | |
| Change in agricultural area (%) | < -20 | -2015 | -1510 | -105 | -5 - 0 | 0-5 | 5 - 10 | 10 - 15 | 15 - 20 | > 20 | |
| Likelihood of occurrence (%) | | | | | | | | | | | 0 |
| Change in urban area (%) | < -20 | -2015 | -1510 | -105 | -5 - 0 | 0-5 | 5 - 10 | 10 - 15 | 15 - 20 | > 20 | |
| Likelihood of occurrence (%) | | | | | | | | | | | 0 |
| Change in forest area (%) | < -20 | -2015 | -1510 | -105 | -5 - 0 | 0-5 | 5 - 10 | 10 - 15 | 15 - 20 | > 20 | |
| Likelihood of occurrence (%) | | | | | | | | | | | 0 |
| | | | | | | | | | | | |
| Relative sea-level change (cm) | | | | | | | | | | | |
| Helsinki, Finland | < -40 | -4030 | -3020 | -2010 | -10 - 0 | 0 - 10 | 10 - 20 | 20 - 30 | 30 - 40 | > 40 | |
| Likelihood of occurrence (%) | | | | | | | | | | | 0 |
| Hamburg, Germany | < -40 | -4030 | -3020 | -2010 | -10 - 0 | 0 - 10 | 10 - 20 | 20 - 30 | 30 - 40 | > 40 | |
| Likelihood of occurrence (%) | | 75 50 | 30 20 | | | 2 .0 | | 20 00 | 20 .0 | | 0 |
| • • | < -40 | -4030 | -3020 | -2010 | -10 - 0 | 0 - 10 | 10 - 20 | 20 - 30 | 30 - 40 | > 40 | |
| Likelihood of occurrence (%) | 40 | 70 = = 00 | 30 = -20 | 20 10 | 10-0 | 3 - 10 | .0 - 20 | 20 - 00 | 30 - 40 | - 40 | 0 |





| CO2 concentration (ppm) | < 270 | 270-370 | 370-470 | 470-570 | 570-670 | 670-770 | 770-870 | 870-970 | 970-1070 | >1070 | |
|--|--------------------------------|------------------------------|-------------------------------|--------------|-------------------|---------|------------------|------------------|------------------|-------|--|
| Likelihood of occurrence (%) | | | | | | | | | | | |
| Climate in northern Europe (north of 47.5 | ON) rola | tive to 19 | C1 1000 | | | | | | | | |
| Mean winter (DJF) temperature change (°C) | _ | -86 | -64 | -42 | -2 - 0 | 0-2 | 2 - 4 | 4-6 | 6-8 | >8 | |
| Likelihood of occurrence (%) | ` 0 | 0 0 | 0 7 | 7 2 | 2 0 | 0 2 | | 7 0 | 0 0 | , 0 | |
| Mean winter (DJF) precipitation change (%) | < -40 | -4030 | -3020 | -2010 | -10 - 0 | 0 - 10 | 10 - 20 | 20 - 30 | 30 - 40 | > 40 | |
| Likelihood of occurrence (%) | 1 40 | -40 - 30 | -3020 | -20 - 10 | -10 - 0 | 0 - 10 | 10 - 20 | 20 - 30 | 30 - 40 | 7 40 | |
| Mean summer (JJA) temperature change (° | < -8 | -86 | -64 | -42 | -2 - 0 | 0-2 | 2 - 4 | 4-6 | 6-8 | >8 | |
| Likelihood of occurrence (%) | | | | | | | | | | | |
| Mean summer (JJA) precipitation change (% | < -40 | -4030 | -3020 | -2010 | -10 - 0 | 0 - 10 | 10 - 20 | 20 - 30 | 30 - 40 | > 40 | |
| Likelihood of occurrence (%) | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| Climate in southern Europe (south of 47. | 5°N) rela | ative to 1 | 961-1990 | | | | | | | | |
| Climate in southern Europe (south of 47 Mean winter (DJF) temperature change (°C) | | a <mark>tive to 1</mark> 9 | 9 <mark>61-1990</mark> -64 | -42 | -2 - 0 | 0-2 | 2 - 4 | 4-6 | 6-8 | >8 | |
| | | | | -42 | -2 - 0 | 0-2 | 2 - 4 | 4-6 | 6-8 | >8 | |
| Mean winter (DJF) temperature change (°C) | | -86 | | -42 -2010 | -2 - 0 -10 - 0 | 0-2 | 2 - 4 10 - 20 | 4 - 6 20 - 30 | 6 - 8 30 - 40 | > 8 | |
| Mean winter (DJF) temperature change (°C) Likelihood of occurrence (%) | < -8 | -86 | -64 | | | | | | | _ | |
| Mean winter (DJF) temperature change (°C) <mark>Likelihood of occurrence (%)</mark> Mean winter (DJF) precipitation change (%) | < -8 < -40 | -86 | -64 | | | | | | | _ | |
| Mean winter (DJF) temperature change (°C) Likelihood of occurrence (%) Mean winter (DJF) precipitation change (%) Likelihood of occurrence (%) Mean summer (JJA) temperature change (°I Likelihood of occurrence (%) | < -40 < -8 | -86 -4030 | -64 -3020 | -2010 | -10 - 0 | 0 - 10 | 10 - 20 | 20 - 30 | 30 - 40 | > 40 | |
| Mean winter (DJF) temperature change (°C) Likelihood of occurrence (%) Mean winter (DJF) precipitation change (%) Likelihood of occurrence (%) Mean summer (JJA) temperature change (°I Likelihood of occurrence (%) Mean summer (JJA) precipitation change (% | < -40 < -8 | -86 -4030 | -64 -3020 -64 | -2010 | -10 - 0 | 0 - 10 | 10 - 20 | 20 - 30 | 30 - 40 | > 40 | |
| Mean winter (DJF) temperature change (°C) Likelihood of occurrence (%) Mean winter (DJF) precipitation change (%) Likelihood of occurrence (%) Mean summer (JJA) temperature change (°I Likelihood of occurrence (%) | < -40 < -8 | -86 -4030 -86 | -64 -3020 -64 | -2010 -42 | -10 - 0 -2 - 0 | 0-10 | 10 - 20 | 20 - 30 | 30 - 40 | > 40 | |
| Mean winter (DJF) temperature change (°C) Likelihood of occurrence (%) Mean winter (DJF) precipitation change (%) Likelihood of occurrence (%) Mean summer (JJA) temperature change (°I Likelihood of occurrence (%) Mean summer (JJA) precipitation change (% | < -8 < -40 < -8 < -40 | -86 -4030 -86 -4030 | -64 -3020 -64 -3020 | -2010 -42 | -10 - 0 -2 - 0 | 0-10 | 10 - 20 | 20 - 30 | 30 - 40 | > 40 | |





| CO2 concentration (ppm) | < 270 | 270-370 | 370-470 | 470-570 | 570-670 | 670-770 | 770-870 | 870-970 | 970-1070 | >1070 | |
|---|------------------------------------|-----------------------------|--|------------------------------|--|---|--|---|----------|--------------------|-------------------|
| Likelihood of occurrence (%) | | | | | 20.00 | 20.00 | 30.00 | 20.00 | 10.00 | | 100 |
| | | | | | | | | | | | |
| Climate in northern Europe (north of 47.5 | | | | | | | | | | | |
| Mean winter (DJF) temperature change (°C) | < -8 | -86 | -64 | -42 | -2 - 0 | 0-2 | 2 - 4 | 4-6 | 6-8 | >8 | |
| Likelihood of occurrence (%) | | | | 50.00 | 50.00 | | | | | | 100 |
| Mean winter (DJF) precipitation change (%) | < -40 | -4030 | -3020 | -2010 | -10 - 0 | 0 - 10 | 10 - 20 | 20 - 30 | 30 - 40 | > 40 | |
| Likelihood of occurrence (%) | | | | 40.00 | 60.00 | | | | | | 100 |
| Mean summer (JJA) temperature change (º | < -8 | -86 | -64 | -42 | -2 - 0 | 0-2 | 2 - 4 | 4 - 6 | 6-8 | >8 | |
| Likelihood of occurrence (%) | | | 20.00 | 30.00 | 50.00 | | | | | | 100 |
| | . 40 | 1 40 20 | -3020 | -2010 | -10 - 0 | 0 - 10 | 10 - 20 | 20 - 30 | 30 - 40 | > 40 | |
| Mean summer (JJA) precipitation change (% | < -40 | -4030 | -3020 | -2010 | -10-0 | 0 - 10 | 10 - 20 | 20 00 | 30 40 | . 40 | |
| Mean summer (JJA) precipitation change (% Likelihood of occurrence (%) | < -40 | -4030 | -3020 | -2010 | 40.00 | 60.00 | 10 - 20 | 20 30 | 30 40 | 7 40 | 100 |
| , , , , , , , , , , , , , , , , , | < -40 | -4030 | -3020 | -2010 | | | 10 - 20 | 20 00 | 30 40 | 7 40 | 100 |
| , , , , , , , , , , , , , , , , , | | | | -2010 | | | 10 - 20 | 20 30 | 30 40 | 7 40 | 100 |
| Likelihood of occurrence (%) Climate in southern Europe (south of 47. | | | | -42 | | | 2 - 4 | 4-6 | 6-8 | >8 | 100 |
| Likelihood of occurrence (%) | 5°N) rela | ative to 1 | 961-1990 | | 40.00 | 60.00 | | | | | 100 |
| Likelihood of occurrence (%) Climate in southern Europe (south of 47 Mean winter (DJF) temperature change (°C) Likelihood of occurrence (%) | 5°N) rela | ative to 19 -86 | 961-1990 | | 40.00 | 0-2 | 2-4 | 4-6 | | | |
| Likelihood of occurrence (%) Climate in southern Europe (south of 47 Mean winter (DJF) temperature change (°C) | 5 <mark>°N) rel</mark> a < -8 | ative to 19 -86 | 9 <mark>61-1990</mark> -64 | -42 | 40.00 -2 - 0 | 0 - 2 70.00 | 2 - 4 20.00 | 4 - 6 10.00 | 6-8 | >8 | |
| Likelihood of occurrence (%) Climate in southern Europe (south of 47.: Mean winter (DJF) temperature change (°C) Likelihood of occurrence (%) Mean winter (DJF) precipitation change (%) | 5 <mark>°N) rel</mark> a < -8 | ative to 19 -86 | 9 <mark>61-1990</mark> -64 | -42 -2010 | -2 - 0 -10 - 0 | 0 - 2 70.00 0 - 10 | 2 - 4 20.00 10 - 20 | 4 - 6 10.00 20 - 30 | 6-8 | >8 | 100 |
| Likelihood of occurrence (%) Climate in southern Europe (south of 47. Mean winter (DJF) temperature change (°C) Likelihood of occurrence (%) Mean winter (DJF) precipitation change (%) Likelihood of occurrence (%) | 5°N) rela < -8 < -40 | ative to 19 -86 -4030 | 9 <mark>61-1990</mark> -64 -3020 | -42 -2010 10.00 | -2 - 0 -10 - 0 20.00 | 0 - 2 70.00 0 - 10 40.00 | 2 - 4 20.00 10 - 20 20.00 | 4 - 6 10.00 20 - 30 10.00 | 6 - 8 | > 8 | 100 |
| Likelihood of occurrence (%) Climate in southern Europe (south of 47.: Mean winter (DJF) temperature change (°C) Likelihood of occurrence (%) Mean winter (DJF) precipitation change (%) Likelihood of occurrence (%) Mean summer (JJA) temperature change (°I) Likelihood of occurrence (%) | 5°N) rela < -8 < -40 < -8 | -4030 | 9 <mark>61-1990</mark> -64 -3020 | -42 -2010 10.00 | -2 - 0 -10 - 0 20.00 -2 - 0 | 0 - 2 70.00 0 - 10 40.00 0 - 2 | 2 - 4 20.00 10 - 20 20.00 2 - 4 | 4 - 6 10.00 20 - 30 10.00 | 6 - 8 | > 8 | 100 |
| Likelihood of occurrence (%) Climate in southern Europe (south of 47.: Mean winter (DJF) temperature change (°C) Likelihood of occurrence (%) Mean winter (DJF) precipitation change (%) Likelihood of occurrence (%) Mean summer (JJA) temperature change (° | 5°N) rela < -8 < -40 < -8 | -4030 | -64 -3020 | -42 -2010 10.00 -42 | -2 - 0 -10 - 0 20.00 -2 - 0 30.00 | 0 - 2 70.00 0 - 10 40.00 0 - 2 50.00 | 2 - 4 20.00 10 - 20 20.00 2 - 4 20.00 | 4 - 6 10.00 20 - 30 10.00 4 - 6 | 6-8 | > 8 > 40 > 8 | 100 |
| Likelihood of occurrence (%) Climate in southern Europe (south of 47.) Mean winter (DJF) temperature change (°C) Likelihood of occurrence (%) Mean winter (DJF) precipitation change (%) Likelihood of occurrence (%) Mean summer (JJA) temperature change (°C) Likelihood of occurrence (%) Mean summer (JJA) precipitation change (%) | 5°N) rela < -8 < -40 < -8 | -4030 | -64 -3020 | -42 -2010 10.00 -42 | -2 - 0 -10 - 0 20.00 -2 - 0 30.00 -10 - 0 | 0 - 2 70.00 0 - 10 40.00 0 - 2 50.00 0 - 10 | 2 - 4 20.00 10 - 20 20.00 2 - 4 20.00 | 4 - 6 10.00 20 - 30 10.00 4 - 6 | 6-8 | > 8 > 40 > 8 | 100 100 100 |









| CO2 concentration (ppm) | < 270 | 270-370 | 370-470 | 470-570 | 570-670 | 670-770 | 770-870 | 870-970 | 970-1070 | >1070 | |
|--|---------------|---------------------|-------------------------------|------------------------------|--|--|---|------------------------------------|----------|-------------|-------------------|
| Likelihood of occurrence (%) | | | | | 20.00 | 20.00 | 30.00 | 20.00 | 10.00 | | 100 |
| | | | | | | | | | | | |
| Climate in northern Europe (north of 47.5 | | | | | | | | | | | |
| Mean winter (DJF) temperature change (°C) | < -8 | -86 | -64 | -42 | -2 - 0 | 0-2 | 2 - 4 | 4-6 | 6-8 | >8 | |
| Likelihood of occurrence (%) | | | | 50.00 | 50.00 | | | | | | 100 |
| Mean winter (DJF) precipitation change (%) | < -40 | -4030 | -3020 | -2010 | -10 - 0 | 0 - 10 | 10 - 20 | 20 - 30 | 30 - 40 | > 40 | |
| Likelihood of occurrence (%) | | | | 40.00 | 60.00 | | | | | | 100 |
| Mean summer (JJA) temperature change (º | < -8 | -86 | -64 | -42 | -2 - 0 | 0-2 | 2 - 4 | 4-6 | 6-8 | >8 | |
| Likelihood of occurrence (%) | | | 20.00 | 30.00 | 50.00 | | | | | | 100 |
| Mean summer (JJA) precipitation change (% | < -40 | -4030 | -3020 | -2010 | -10 - 0 | 0 - 10 | 10 - 20 | 20 - 30 | 30 - 40 | > 40 | |
| Likelihood of occurrence (%) | | | | | 40.00 | 60.00 | | | | | 100 |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| Climate in southern Europe (south of 47. | 5°N) rela | ative to 1 | 961-1990 | | | | | | | | |
| <u> </u> | _ | -86 | 9 <mark>61-1990</mark> -64 | -42 | -2 - 0 | 0-2 | 2 - 4 | 4 - 6 | 6-8 | > 8 | |
| Climate in southern Europe (south of 47.) Mean winter (DJF) temperature change (°C) Likelihood of occurrence (%) | _ | | | -42 | -2 - 0 | 0 - 2 70.00 | 2 - 4 20.00 | 4 - 6 10.00 | 6-8 | > 8 | 100 |
| Mean winter (DJF) temperature change (°C) Likelihood of occurrence (%) | _ | -86 | | -42 -2010 | -2 - 0 -10 - 0 | | | _ · - | 6 - 8 | > 8 > 40 | 100 |
| Mean winter (DJF) temperature change (°C) <mark>Likelihood of occurrence (%)</mark> Mean winter (DJF) precipitation change (%) | < -8 | -86 | -64 | | | 70.00 | 20.00 | 10.00 | | _ | |
| Mean winter (DJF) temperature change (°C) Likelihood of occurrence (%) Mean winter (DJF) precipitation change (%) Likelihood of occurrence (%) | < -8 < -40 | -86 | -64 | -2010 | -10 - 0 | 70.00 0 - 10 | 20.00 10 - 20 | 10.00 20 - 30 | | _ | |
| Mean winter (DJF) temperature change (°C) | < -8 < -40 | -86 -4030 | -64 -3020 | -2010 10.00 | -10 - 0 20.00 | 70.00 0 - 10 40.00 | 20.00 10 - 20 20.00 | 10.00 20 - 30 10.00 | 30 - 40 | > 40 | 100 |
| Mean winter (DJF) temperature change (°C) Likelihood of occurrence (%) Mean winter (DJF) precipitation change (%) Likelihood of occurrence (%) Mean summer (JJA) temperature change (°I Likelihood of occurrence (%) | < -40 < -8 | -86 -4030 | -64 -3020 -64 | -2010 10.00 | -10 - 0 20.00 -2 - 0 | 70.00 0 - 10 40.00 0 - 2 | 20.00 10 - 20 20.00 2 - 4 | 10.00 20 - 30 10.00 | 30 - 40 | > 40 | 100 |
| Mean winter (DJF) temperature change (°C) Likelihood of occurrence (%) Mean winter (DJF) precipitation change (%) Likelihood of occurrence (%) Mean summer (JJA) temperature change (°I | < -40 < -8 | -86 -4030 -86 | -64 -3020 -64 | -2010 10.00 -42 | -10 - 0 20.00 -2 - 0 30.00 | 70.00 0 - 10 40.00 0 - 2 50.00 | 20.00 10 - 20 20.00 2 - 4 20.00 | 10.00 20 - 30 10.00 4 - 6 | 30 - 40 | > 40 | 100 100 |
| Mean winter (DJF) temperature change (°C) Likelihood of occurrence (%) Mean winter (DJF) precipitation change (%) Likelihood of occurrence (%) Mean summer (JJA) temperature change (°C) Likelihood of occurrence (%) Mean summer (JJA) precipitation change (%) | < -40 < -8 | -86 -4030 -86 | -64 -3020 -64 | -2010 10.00 -42 | -10 - 0 20.00 -2 - 0 30.00 -10 - 0 | 70.00 0 - 10 40.00 0 - 2 50.00 0 - 10 | 20.00 10 - 20 20.00 2 - 4 20.00 | 10.00 20 - 30 10.00 4 - 6 | 30 - 40 | > 40 | 100 100 100 |





| CO2 concentration (ppm) | < 270 | 270-370 | 370-470 | 470-570 | 570-670 | 670-770 | 770-870 | 870-970 | 970-1070 | >1070 | |
|---|-----------|-------------|------------|---------|---------|---------|---------|---------|----------|-------|-----|
| Likelihood of occurrence (%) | | | | | 20.00 | 20.00 | 30.00 | 20.00 | 10.00 | | 100 |
| | | | | | | | | | | | |
| Climate in northern Europe (north of 47.5 | 5°N) rela | tive to 19 | 61-1990 | | | | | | | | |
| Mean winter (DJF) temperature change (°C) | < -8 | -86 | -64 | -42 | -2 - 0 | 0-2 | 2 - 4 | 4-6 | 6-8 | >8 | |
| Likelihood of occurrence (%) | | | | 50.00 | 50.00 | | | | | | 100 |
| Mean winter (DJF) precipitation change (%) | < -40 | -4030 | -3020 | -2010 | -10 - 0 | 0 - 10 | 10 - 20 | 20 - 30 | 30 - 40 | > 40 | |
| _ikelihood of occurrence (%) | | | | 40.00 | 60.00 | | | | | | 100 |
| Mean summer (JJA) temperature change (^o i | < -8 | -86 | -64 | -42 | -2 - 0 | 0-2 | 2 - 4 | 4 - 6 | 6-8 | >8 | |
| Likelihood of occurrence (%) | | | 20.00 | 30.00 | 50.00 | | | | | | 100 |
| Mean summer (JJA) precipitation change (% | < -40 | -4030 | -3020 | -2010 | -10 - 0 | 0 - 10 | 10 - 20 | 20 - 30 | 30 - 40 | > 40 | |
| _ikelihood of occurrence (%) | | | | | 40.00 | 60.00 | | | | | 100 |
| | | | | | | | | | | | |
| Climate in southern Europe (south of 47. | 5°N) rela | ative to 19 | 961-1990 | | | | | | | | |
| Mean winter (DJF) temperature change (°C) | < -8 | -86 | -64 | -42 | -2 - 0 | 0-2 | 2 - 4 | 4 - 6 | 6-8 | >8 | |
| Likelihood of occurrence (%) | | | | | | 70.00 | 20.00 | 10.00 | | | 100 |
| Mean winter (DJF) precipitation change (%) | < -40 | -4030 | -3020 | -2010 | -10 - 0 | 0 - 10 | 10 - 20 | 20 - 30 | 30 - 40 | > 40 | |
| Likelihood of occurrence (%) | | | | 10.00 | 20.00 | 40.00 | 20.00 | 10.00 | | | 100 |
| Mean summer (JJA) temperature change (º | < -8 | -86 | -64 | -42 | -2 - 0 | 0-2 | 2 - 4 | 4-6 | 6-8 | >8 | |
| Likelihood of occurrence (%) | | | | | 30.00 | 50.00 | 20.00 | | | | 100 |
| Mean summer (JJA) precipitation change (% | < -40 | -4030 | -3020 | -2010 | -10 - 0 | 0 - 10 | 10 - 20 | 20 - 30 | 30 - 40 | > 40 | |
| ikelihood of occurrence (%) | | | | | 20.00 | 80.00 | | | | | 100 |
| | | 61 m | 47. 500.10 | N | | Droc | . 40 | exit ~ | | | |
| Are you more familiar with regions north | | | | | | | | | | | |





| | | | | Α۱ | /EC 20 |)50 Sc | enario | s ques | tionna | ire | | | |
|---|---|--------------------|---------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|---------|--------|
| | AVEC Questionnaire | ies enter you | r setin | nate of | the per | centage | likeliho | od of ea | ach outc | ome liet | ed occu | rring b | y 2050 |
| | Welcome. | million in 1995) | | | | | | | | | | | Totals |
| | You are a new respondent. | | < 405 | 405-430 | 430-455 | 455-480 | 480-505 | 505-530 | 530-555 | 555-580 | 580-605 | > 605 | |
| | Please supply entries to the | | | | | | | | | | | | 0 |
| | empty boxes under each category. You should | | | | | | | | | | | | |
| | provide responses to all 20 | GDP) per capita | (OECD E | urope = 2 | 3600; Eas | tern Euroj | oe = 2800 | in 1995) | | | | | |
| | categories. Have fun! | ı | < 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 (%) | | | | | | | | | | | | 0 |
| | 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 | |
| | Likelihood of occurrence (%) | | | | | | | | | | | | 0 |
| | | | | | | | | | | | | | |
| | Change in emissions of a | idifying and eut | rophyin | | | | 00) | | | | | | |
| | Change in SO ₂ emissions (%) | | < -80 | -8060 | -6040 | -4020 | -20 - 0 | 0 - 20 | 20 - 40 | 40 - 60 | 60 - 80 | > 80 | |
| | Likelihood of occurrence (%) | | | | | | | | | | | | 0 |
| | Change in NO _x emissions (%) | | < -80 | -8060 | -6040 | -4020 | -20 - 0 | 0 - 20 | 20 - 40 | 40 - 60 | 60 - 80 | > 80 | |
| ı | Likelihood of occurrence (%) | | | | | | | | | | | | 0 |
| | | | | | | | | | | | | | |
| | Change in European land u | ise (relative to 1 | 995) | | | | | | | | | | |
| | Change in agricultural area (% | 5) | < -20 | -2015 | -1510 | -105 | -5 - 0 | 0-5 | 5-10 | 10 - 15 | 15 - 20 | > 20 | |
| | Likelihood of occurrence (%) | | | | | | | | | | | | 0 |
| | Change in urban area (%) | | < -20 | -2015 | -1510 | -105 | -5 - 0 | 0-5 | 5-10 | 10 - 15 | 15 - 20 | > 20 | |
| | Likelihood of occurrence (%) | | | | | | | | | | | | 0 |
| | Change in forest area (%) | | < -20 | -2015 | -1510 | -105 | -5 - 0 | 0-5 | 5-10 | 10 - 15 | 15 - 20 | > 20 | |
| 1 | Likelihood of occurrence (%) | | | | | | | | | | | | 0 |
| | | | | | | | | | | | | | |
| | Relative sea-level change | (cm) | | | | | | | | | | | |
| | Helsinki, Finland | | < -40 | -4030 | -3020 | -2010 | -10 - 0 | 0 - 10 | 10 - 20 | 20 - 30 | 30 - 40 | > 40 | |
| | Likelihood of occurrence (%) | | | | | | | | | | | | 0 |
| | Hamburg, Germany | | < -40 | -4030 | -3020 | -2010 | -10 - 0 | 0 - 10 | 10 - 20 | 20 - 30 | 30 - 40 | > 40 | |
| | Likelihood of occurrence (%) | | | | | | | | | | | | 0 |
| | Venice, Italy | | < -40 | -4030 | -3020 | -2010 | -10 - 0 | 0 - 10 | 10 - 20 | 20 - 30 | 30 - 40 | > 40 | |
| | Likelihood of occurrence (%) | | | | | | | | | | | | 0 |





Scenarios questionnaire

Good luck!

