

Appendix G:
SOURCE CODE OF THE MODEL

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Sub Calculate_confidence()

For i = 1 To 1000000
    If [Rs_det_sb].Offset(i, 1) = "" Then
        [Rs_det_sb].Offset(i, 0) = i - 1
        [x] = [Rs_det_sb].Offset(i, 0)
        i = 1000000
    End If
Next i

For i = 1 To [x]

    Call run

    [Rs_det_sb].Offset(i, 2) = [Rs_det_sb].Offset(i, 2) * [Agent].Offset(1, 29)
    [Rs_det_sb].Offset(i, 4) = [Rs_det_sb].Offset(i, 2) * [Agent].Offset(1, 29)
    [Rs_det_sb].Offset(i, 3) = 1 - ([Rs_det_sb].Offset(i, 2) + [Rs_det_sb].Offset(i, 4))

    Application.Goto Reference:="Data_log_to_copy"
    Selection.Copy
    Sheets.Add After:=Sheets(Sheets.Count)
    Range("A1").Select
    Selection.PasteSpecial Paste:=xlPasteValues, Operation:=xlNone, SkipBlanks _
        :=False, Transpose:=False
    Sheets("Agent environment").Select

Next i

End Sub

Sub run()

    Call initialize_model

    'let recipints engage in dialogue according to the
    'period in which their legitimate power permits them to
    Do While [time_period] < [legitimate_power4]

        'RECIPIENT:
        Call update_recipients_personal_information
        Call populate_recipients_story_board
        Call update_recipients_details_with_appropriate_scenario
        Call calculate_recipients_confidence_and_adopted_belief
    
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    Call log_recipients_data

    'PROVIDER:
    Call update_providers_personal_information
    Call populate_providers_story_board
    Call update_providers_details_with_appropriate_scenario
    Call Prepare_and_weight_evidence
    Call log_providers_data

    'TIME PASSED:
    [time_period] = [time_period] + 1

Loop

End Sub

Sub calculate_recipients_confidence_and_adopted_belief()

    'Logic used to calculate the recipients confidence in the sufficiency of
    'the submitted evidence.

    'calculating how the submission addresses each type of evidence

    'For i = 1 To 1000000
    '    If [Rs_det_sb].Offset(i, 1) = "" Then
    '        [Rs_det_sb].Offset(i, 0) = i - 1
    '        [x] = [Rs_det_sb].Offset(i, 0)
    '        i = 1000000
    '    End If
    'Next i

    For i = 1 To 10

        If [Evidence_log].Offset(i, 9) < 99.99 Then

            'for the political type of evidence
            [Evidence_log].Offset(i, 1) = [Evidence_log].Offset(i, 1) * _
                [Providers_evidence_log].Offset(1, 1)

            'for the social type of evidence
            [Evidence_log].Offset(i, 2) = [Evidence_log].Offset(i, 2) * _
                [Providers_evidence_log].Offset(1, 2)

            'for the costly type of evidence
        
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[Evidence_log].Offset(i, 3) = [Evidence_log].Offset(i, 3) * _
[Providers_evidence_log].Offset(1, 3)

'for the technical type of evidence
[Evidence_log].Offset(i, 4) = [Evidence_log].Offset(i, 4) * _
[Providers_evidence_log].Offset(1, 4)

'for the qualitative type of evidence
[Evidence_log].Offset(i, 5) = [Evidence_log].Offset(i, 5) * _
[Providers_evidence_log].Offset(1, 5)

'for the quantitative type of evidence
[Evidence_log].Offset(i, 6) = [Evidence_log].Offset(i, 6) * _
[Providers_evidence_log].Offset(1, 6)

For x = 1 To 10
    [Evidence_log].Offset(x, 8) = [Evidence_log].Offset(x, 1) + _
    [Evidence_log].Offset(x, 2) + [Evidence_log].Offset(x, 3) + _
    [Evidence_log].Offset(x, 4) + [Evidence_log].Offset(x, 5) + _
    [Evidence_log].Offset(x, 6)
Next x

For y = 1 To 10
    [Evidence_log].Offset(y, 9) = (1 - ([Evidence_log].Offset(y, 8) _
    / [Evidence_log].Offset(y, 7))) * 100
Next y

For Z = 1 To 10
    If [Evidence_log].Offset(Z, 9) > 0 Then
        [Agent].Offset(1, 31) = [Evidence_log].Offset(Z, 9) / 100
    End If
Next Z

[Agent].Offset(1, 29) = [overall_confidence] / 100

i = 10

End If

Next i

'recalculate recipients belief according to their measure of confidence
'Belief for
[Agent].Offset(1, 33) = [Agent].Offset(1, 31) * [Agent].Offset(1, 33)
'Belief against

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[Agent].Offset(1, 37) = [Agent].Offset(1, 31) * [Agent].Offset(1, 37)
'Uncommitted belief
[Agent].Offset(1, 35) = 1 - ([Agent].Offset(1, 33) + [Agent].Offset(1, 37))

End Sub

Sub Prepare_and_weight_evidence()

'Logic checking to see what type of evidence they will submit

If ([Agent].Offset(1, 27) * [Agent].Offset(2, 27)) > 0.29 Then

    'Political
    [Providers_evidence_log].Offset(1, 1) = (Int((30 - 0 + 1) * Rnd + 0) / 100)
    'Social
    [Providers_evidence_log].Offset(1, 2) = (Int((30 - 0 + 1) * Rnd + 0) / 100)
    'Costly
    [Providers_evidence_log].Offset(1, 3) = (Int((30 - 0 + 1) * Rnd + 0) / 100)
    'Technical
    [Providers_evidence_log].Offset(1, 4) = (Int((30 - 0 + 1) * Rnd + 0) / 100)
    'Qualitative
    [Providers_evidence_log].Offset(1, 5) = (Int((30 - 0 + 1) * Rnd + 0) / 100)
    'Quantitative
    [Providers_evidence_log].Offset(1, 6) = (Int((30 - 0 + 1) * Rnd + 0) / 100)

ElseIf ([Agent].Offset(1, 27) * [Agent].Offset(2, 27)) > 0.16 Then

    'Political
    [Providers_evidence_log].Offset(1, 1) = (Int((60 - 0 + 1) * Rnd + 0) / 100)
    'Social
    [Providers_evidence_log].Offset(1, 2) = (Int((60 - 0 + 1) * Rnd + 0) / 100)
    'Costly
    [Providers_evidence_log].Offset(1, 3) = (Int((60 - 0 + 1) * Rnd + 0) / 100)
    'Technical
    [Providers_evidence_log].Offset(1, 4) = (Int((60 - 0 + 1) * Rnd + 0) / 100)
    'Qualitative
    [Providers_evidence_log].Offset(1, 5) = (Int((60 - 0 + 1) * Rnd + 0) / 100)
    'Quantitative
    [Providers_evidence_log].Offset(1, 6) = (Int((60 - 0 + 1) * Rnd + 0) / 100)

Else:

    'Political
    [Providers_evidence_log].Offset(1, 1) = (Int((100 - 0 + 1) * Rnd + 0) / 100)
    'Social

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[Providers_evidence_log].Offset(1, 2) = (Int((100 - 0 + 1) * Rnd + 0) / 100)
'Costly
[Providers_evidence_log].Offset(1, 3) = (Int((100 - 0 + 1) * Rnd + 0) / 100)
'Technical
[Providers_evidence_log].Offset(1, 4) = (Int((100 - 0 + 1) * Rnd + 0) / 100)
'Qualitative
[Providers_evidence_log].Offset(1, 5) = (Int((100 - 0 + 1) * Rnd + 0) / 100)
'Quantitative
[Providers_evidence_log].Offset(1, 6) = (Int((100 - 0 + 1) * Rnd + 0) / 100)

End If

End Sub

'SUB ROUTINE THAT INITIALIZES THE AGENT MODEL BY POPULATING THAT
"Agent environment"
'WORK SHEET WITH THE NECESSARY INTIAL INFORMATION
CHARACTERISING THE RECIPIENT AND PROVIDING
'AGENT
Sub initialize_model()

'LOGIC THAT CLEARS ALL DATA FROM PREVIOUS SIMULATION RUN
[duration_of_dialouge_for_recipient] = 0
[duration_of_dialouge_for_provider] = 0
[time_period] = 0
[data_table.].ClearContents
[r_story_board_table].ClearContents
[p_story_board_table].ClearContents
[agent_info.].ClearContents
[PoCDataLog].ClearContents
[Evidence_log_table].ClearContents
[numbers_in_rsb].ClearContents
[Number_column_psb].ClearContents
[psb_values].ClearContents
[rsb_values].ClearContents

'-----

'CONDITIONAL LOGIC THAT CALCULATES EACH AGENTS INITIAL
PERSONALITY BASED ON
'THERE STATED PERSONALITY TYPE
'KEY:

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```

'* (1, 1) = RECIPIENTS CURRENT OPENESS TO EXPERIENCE
'* (1, 3) = RECIPIENTS CURRENT CONSCIENTIOUSNESS
'* (1, 5) = RECIPIENTS CURRENT EXTROVERSION
'* (1, 7) = RECIPIENTS CURRENT AGREEABLENESS
'* (1, 9) = RECIPIENTS CURRENT EMOTIONAL STABILITY
'* (2, 1) = PROVIDERS CURRENT OPENESS TO EXPERIENCE
'* (2, 3) = PROVIDERS CURRENT CONSCIENTIOUSNESS
'* (2, 5) = PROVIDERS CURRENT EXTROVERSION
'* (2, 7) = PROVIDERS CURRENT AGREEABLENESS
'* (2, 9) = PROVIDERS CURRENT EMOTIONAL STABILITY

```

'CONDITIONAL LOGIC FOR CALCULATING RECIPIENTS INITIAL PERSONALITY

If ([Agent].Offset(1, 0) = "negotiator") Then

```

'Recipient's openness to experience (complete_rand)
[Agent].Offset(1, 1) = Int((100 - 0 + 1) * Rnd + 0) / 100
'Recipient's conscientiousness (rand medium)
[Agent].Offset(1, 3) = Int((55 - 45 + 1) * Rnd + 45) / 100
'Recipient's extroversion (rand high)
[Agent].Offset(1, 5) = Int((100 - 55 + 1) * Rnd + 55) / 100
'Recipient's agreeableness (rand_medium)
[Agent].Offset(1, 7) = Int((55 - 45 + 1) * Rnd + 45) / 100
'Recipient's emotional stability (rand_medium)
[Agent].Offset(1, 9) = Int((55 - 45 + 1) * Rnd + 45) / 100

```

Elseif ([Agent].Offset(1, 0) = "aggressor") Then

```

'Recipient's openness to experience (complete rand)
[Agent].Offset(1, 1) = Int((100 - 0 + 1) * Rnd + 0) / 100
'Recipient's conscientiousness (rand high)
[Agent].Offset(1, 3) = Int((100 - 55 + 1) * Rnd + 55) / 100
'Recipient's extroversion (rand high)
[Agent].Offset(1, 5) = Int((100 - 55 + 1) * Rnd + 55) / 100
'Recipient's agreeableness (rand_medium)
[Agent].Offset(1, 7) = Int((55 - 45 + 1) * Rnd + 45) / 100
'Recipient's emotional stability (rand_medium)
[Agent].Offset(1, 9) = Int((55 - 45 + 1) * Rnd + 45) / 100

```

Elseif ([Agent].Offset(1, 0) = "submissive") Then

```

'Recipient's openness to experience
[Agent].Offset(1, 1) = Int((100 - 0 + 1) * Rnd + 0) / 100
'Recipient's conscientiousness (rand low)
[Agent].Offset(1, 3) = Int((45 - 0 + 1) * Rnd + 0) / 100

```

```

'Recipient's extroversion (rand low)
[Agent].Offset(1, 5) = Int((45 - 0 + 1) * Rnd + 0) / 100
'Recipient's agreeableness (rand_medium)
[Agent].Offset(1, 7) = Int((55 - 45 + 1) * Rnd + 45) / 100
'Recipient's emotional stability (rand_medium)
[Agent].Offset(1, 9) = Int((55 - 45 + 1) * Rnd + 45) / 100

```

ElseIf ([Agent].Offset(1, 0) = "avoider") Then

```

'Recipient's openness to experience
[Agent].Offset(1, 1) = Int((100 - 0 + 1) * Rnd + 0) / 100
'Recipient's conscientiousness (rand low)
[Agent].Offset(1, 3) = Int((45 - 0 + 1) * Rnd + 0) / 100
'Recipient's extroversion (rand low)
[Agent].Offset(1, 5) = Int((45 - 0 + 1) * Rnd + 0) / 100
'Recipient's agreeableness (complete rand)
[Agent].Offset(1, 7) = Int((100 - 0 + 1) * Rnd + 0) / 100
'Recipient's emotional stability (rand_low)
[Agent].Offset(1, 9) = Int((45 - 0 + 1) * Rnd + 0) / 100

```

End If

'CONDITIONAL LOGIC FOR CALCULATING PROVIDERS INITIAL PERSONALITY

If ([Agent].Offset(2, 0) = "negotiator") Then

```

'Provider's openness to experience
[Agent].Offset(2, 1) = Int((100 - 0 + 1) * Rnd + 0) / 100
'Provider's conscientiousness (rand medium)
[Agent].Offset(2, 3) = Int((55 - 45 + 1) * Rnd + 45) / 100
'Provider's extroversion (rand high)
[Agent].Offset(2, 5) = Int((100 - 55 + 1) * Rnd + 55) / 100
'Provider's agreeableness (rand medium)
[Agent].Offset(2, 7) = Int((55 - 45 + 1) * Rnd + 45) / 100
'Provider's emotional stability (rand medium)
[Agent].Offset(2, 9) = Int((55 - 45 + 1) * Rnd + 45) / 100

```

ElseIf ([Agent].Offset(2, 0) = "aggressor") Then

```

'Provider's openness to experience
[Agent].Offset(2, 1) = Int((100 - 0 + 1) * Rnd + 0) / 100
'Provider's conscientiousness (rand high)
[Agent].Offset(2, 3) = Int((100 - 55 + 1) * Rnd + 55) / 100
'Provider's extroversion (rand high)

```

```

[Agent].Offset(2, 5) = Int((100 - 55 + 1) * Rnd + 55) / 100
'Provider's agreeableness (rand medium)
[Agent].Offset(2, 7) = Int((55 - 45 + 1) * Rnd + 45) / 100
'Provider's emotional stability (rand medium)
[Agent].Offset(2, 9) = Int((55 - 45 + 1) * Rnd + 45) / 100

```

ElseIf ([Agent].Offset(2, 0) = "submissive") Then

```

'Provider's openness to experience (complete rand)
[Agent].Offset(2, 1) = Int((100 - 0 + 1) * Rnd + 0) / 100
'Provider's conscientiousness (rand low)
[Agent].Offset(2, 3) = Int((45 - 0 + 1) * Rnd + 0) / 100
'Provider's extroversion (rand low)
[Agent].Offset(2, 5) = Int((45 - 0 + 1) * Rnd + 0) / 100
'Provider's agreeableness (rand medium)
[Agent].Offset(2, 7) = Int((55 - 45 + 1) * Rnd + 45) / 100
'Provider's emotional stability (rand medium)
[Agent].Offset(2, 9) = Int((55 - 45 + 1) * Rnd + 45) / 100

```

ElseIf ([Agent].Offset(2, 0) = "avoider") Then

```

'Provider's openness to experience (complete rand)
[Agent].Offset(2, 1) = Int((100 - 0 + 1) * Rnd + 0) / 100
'Provider's conscientiousness (rand low)
[Agent].Offset(2, 3) = Int((45 - 0 + 1) * Rnd + 0) / 100
'Provider's extroversion (rand low)
[Agent].Offset(2, 5) = Int((45 - 0 + 1) * Rnd + 0) / 100
'Provider's agreeableness (complete rand)
[Agent].Offset(2, 7) = Int((100 - 0 + 1) * Rnd + 0) / 100
'Provider's emotional stability (rand low)
[Agent].Offset(2, 9) = Int((45 - 0 + 1) * Rnd + 0) / 100

```

End If

'-----

'CONDITIONAL LOGIC TO CALCULATE EACH AGENTS INITIAL PROPENSITY TO TRUST

'KEY:

- * (1, 5) = RECIPIENTS CURRENT EXTROVERSION
- * (1, 7) = RECIPIENTS CURRENT AGREEABLENESS
- * (1, 9) = RECIPIENTS CURRENT EMOTIONAL STABILITY
- * (1, 11) = RECIPIENTS CURRENT PROPENSITY TO TRUST
- * (2, 5) = PROVIDERS CURRENT EXTROVERSION
- * (2, 7) = PROVIDERS CURRENT AGREEABLENESS
- * (2, 9) = PROVIDERS CURRENT EMOTIONAL STABILITY

```

    '* (2, 11) = PROVIDERS CURRENT PROPENSITY TO TRUST

TRUST    'EQUATION TO CALCULATE RECIPIENTS CURRENT PROPENSITY TO
        [Agent].Offset(1, 11) = ([Agent].Offset(1, 5) + _
        [Agent].Offset(1, 7) + [Agent].Offset(1, 9)) / 3

TRUST    'EQUATION TO CALCULATE PROVIDERS CURRENT PROPENSITY TO
        [Agent].Offset(2, 11) = ([Agent].Offset(2, 5) + _
        [Agent].Offset(2, 7) + [Agent].Offset(2, 9)) / 3

'-----

'LOGIC TO CALCULATE EACH AGENT'S INITIAL TRUSTWORTHINESS
'KEY
'* (1,3) = RECIPIENTS CURRENT CONSCIENTIOUSNESS
'* (1,7) = RECIPIENTS CURRENT AGREEABLENESS
'* (1,23) = RECIPIENTS CURRENT TRUSTWORTHINESS
'* (2,3) = PROVIDERS CURRENT CONSCIENTIOUSNESS
'* (2,7) = PROVIDERS CURRENT AGREEABLENESS
'* (2,23) = PROVIDERS CURRENT TRUSTWORTHINESS

TRUSTWORTHINESS    'EQUATION THAT CALCULATES RECIPIENTS CURRENT
        [Agent].Offset(1, 23) = (([Agent].Offset(1, 3) + _
        [Agent].Offset(1, 7)) / 2)

TRUSTWORTHINESS    'EQUATION THAT CALCULATES PROVIDERS CURRENT
        [Agent].Offset(2, 23) = (([Agent].Offset(2, 3) + _
        [Agent].Offset(2, 7)) / 2)

'-----

POWER    'CONDITIONAL LOGIC THAT CALCULATES EACH AGENTS INITIAL REFERENT
        'KEY:
        '* (1, 7) = RECIPIENTS CURRENT AGREEABLENESS
        '* (1, 9) = RECIPIENTS CURRENT EMOTIONAL STABILITY
        '* (1, 25) = RECIPIENTS CURRENT REFERENT POWER
        '* (2, 7) = PROVIDERS CURRENT AGREEABLENESS
        '* (2, 9) = PROVIDERS CURRENT EMOTIONAL STABILITY
        '* (2, 25) = PROVIDERS CURRENT REFERENT POWER

        'LOGIC TO CALCULATE RECIPIENTS INITIAL REFERENT POWER

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        'CONDITIONAL LOGIC THAT STATES, "IF" RECIPIENT HAS A HIGH
POTENTIAL    'OF ESTABLISHING REFERENT POWER, "THEN" CHECK TO SEE IF THEY
HAVE ENGAGED    'IN DIALOGUE LONG ENOUGH FOR THEIR REFERENT POWER TO HAVE ITS
FULL EFFECT    If (([Agent].Offset(1, 7) + [Agent].Offset(1, 9)) / 2) > 0.6 Then
        If ([time_period] / 30) < 1 Then

        'EQUATION THAT CALCULATES RECIPIENTS CURRENT REFERENT
POWER    'MARGANALISED BY THE TIME IN WHICH THEY HAVE ENGAGED IN
DIALOGUE    'WITH THE PROVIDER
        [Agent].Offset(1, 25) = (([Agent].Offset(1, 7) + _
        [Agent].Offset(1, 9)) / 2) * ([time_period] / 30)

        'IF RECIPIENT HAS ENGAGED IN DIALOGUE LONG ENOUGH THEN
CALCULATE ITS FULL    'POTENTIAL
Else

        'EQUATION THAT CALCULATED RECIPIENTS CURRENT REFERENT
POWER AT ITS    'FULL POTENTIAL
        [Agent].Offset(1, 25) = (([Agent].Offset(1, 7) + _
        [Agent].Offset(1, 9)) / 2)

        'END OF CONDITIONAL LOGIC
End If

        'CONDITIONAL LOGIC THAT STATES, "IF" RECIPIENT HAS A MEDIUM
POTENTIAL    'OF ESTABLISHING REFERENT POWER, "THEN" CHECK TO SEE IF THEY
HAVE ENGAGED    'IN DIALOGUE LONG ENOUGH FOR THEIR REFERENT POWER TO HAVE ITS
FULL EFFECT    ElseIf (([Agent].Offset(1, 7) + [Agent].Offset(1, 9)) / 2) > 0.3 Then

        'CONDITIONAL LOGIC THAT STATES, "IF" THE RECIPIENT HAS NOT
ENAGED IN DIALOGUE    'WITH THE PROVIDER LONG ENOUGH FOR THEIR REFERENT POWER
TO HAVE ITS FULL    'EFFECT "THEN" CALCULATE THE MARGINAL EFFECT OF THE
RECIPIENTS CURRENT

```

'REFERENT POWER
 If ([time_period] / 365) < 1 Then

 'EQUATION THAT CALCULATES RECIPIENTS CURRENT REFERENT
 POWER
 'MARGANALISED BY THE TIME IN WHICH THEY HAVE ENGAGED IN
 DIALOUGE
 'WITH THE PROVIDER

$$[Agent].Offset(1, 25) = ([Agent].Offset(1, 7) + \frac{[Agent].Offset(1, 9)}{2}) * ([time_period] / 365)$$

 'IF RECIPIENT HAS ENGAGED IN DIALOUGE LONG ENOUGH THEN
 CALCULATE ITS FULL
 'POTENTIAL
 Else

 'EQUATION THAT CALCULATED RECIPIENTS CURRENT REFERENT
 POWER AT ITS
 'FULL POTENTIAL

$$[Agent].Offset(1, 25) = ([Agent].Offset(1, 7) + \frac{[Agent].Offset(1, 9)}{2})$$

 'END OF CONDITIONAL LOGIC
 End If

 'CONDITIONAL LOGIC THAT STATES, "IF" RECIPIENT HAS A LOW
 POTENTIAL
 'OF ESTABLISHING REFERENT POWER, "THEN" CHECK TO SEE IF THEY
 HAVE ENGAGED
 'IN DIALOGE LONG ENOUGH FOR THEIR REFERENT POWER TO HAVE ITS
 FULL EFFECT
 Elseif (([Agent].Offset(1, 7) + [Agent].Offset(1, 9)) / 2) > 0 Then

 'CONDITIONAL LOGIC THAT STATES, "IF" THE RECIPIENT HAS NOT
 ENAGED IN DIALOGE
 'WITH THE PROVIDER LONG ENOUGH FOR THEIR REFERENT POWER
 TO HAVE ITS FULL
 'EFFECT "THEN" CALCULATE THE MARGINAL EFFECT OF THE
 RECIPIENTS CURRENT
 'REFERENT POWER
 If ([time_period] / 1095) < 1 Then

 'EQUATION THAT CALCULATES RECIPIENTS CURRENT REFERENT
 POWER
 'MARGANALISED BY THE TIME IN WHICH THEY HAVE ENGAGED IN
 DIALOUGE

'WITH THE PROVIDER

$$[Agent].Offset(1, 25) = ([Agent].Offset(1, 7) + \frac{[Agent].Offset(1, 9)}{2}) * ([time_period] / 1095)$$

 'IF RECIPIENT HAS ENGAGED IN DIALOUGE LONG ENOUGH THEN
 CALCULATE ITS FULL
 'POTENTIAL
 Else

 'EQUATION THAT CALCULATED RECIPIENTS CURRENT REFERENT
 POWER AT ITS
 'FULL POTENTIAL

$$[Agent].Offset(1, 25) = ([Agent].Offset(1, 7) + \frac{[Agent].Offset(1, 9)}{2})$$

 'END OF CONDITIONAL LOGIC
 End If

 'END OF CONDITIONAL LOGIC
 End If

 'LOGIC TO CALCULATE PROVIDERS INITIAL REFERENT POWER

 'CONDITIONAL LOGIC THAT STATES, "IF" PROVIDER HAS A HIGH
 POTENTIAL
 'OF ESTABLISHING REFERENT POWER, "THEN" CHECK TO SEE IF THEY
 HAVE ENGAGED
 'IN DIALOGE LONG ENOUGH FOR THEIR REFERENT POWER TO HAVE ITS
 FULL EFFECT
 If (([Agent].Offset(2, 7) + [Agent].Offset(2, 9)) / 2) > 0.6 Then
 If ([time_period] / 30) < 1 Then

 'EQUATION THAT CALCULATES PROVIDERS CURRENT REFERENT
 POWER
 'MARGANALISED BY THE TIME IN WHICH THEY HAVE ENGAGED IN
 DIALOUGE
 'WITH THE PROVIDER

$$[Agent].Offset(2, 25) = ([Agent].Offset(2, 7) + \frac{[Agent].Offset(2, 9)}{2}) * ([time_period] / 30)$$

 'IF PROVIDER HAS ENGAGED IN DIALOUGE LONG ENOUGH THEN
 CALCULATE ITS FULL
 'POTENTIAL
 Else

POWER AT ITS 'EQUATION THAT CALCULATED PROVIDERS CURRENT REFERENT

'FULL POTENTIAL

$$[Agent].Offset(2, 25) = ([Agent].Offset(2, 7) + _ [Agent].Offset(2, 9)) / 2)$$

'END OF CONDITIONAL LOGIC
End If

POTENTIAL 'CONDITIONAL LOGIC THAT STATES, "IF" PROVIDER HAS A MEDIUM

HAVE ENGAGED 'OF ESTABLISHING REFERENT POWER, "THEN" CHECK TO SEE IF THEY

FULL EFFECT 'IN DIALOGUE LONG ENOUGH FOR THEIR REFERENT POWER TO HAVE ITS

ElseIf $(([Agent].Offset(2, 7) + [Agent].Offset(2, 9)) / 2) > 0.3$ Then

ENAGED IN DIALOGUE 'CONDITIONAL LOGIC THAT STATES, "IF" THE PROVIDER HAS NOT

TO HAVE ITS FULL 'WITH THE PROVIDER LONG ENOUGH FOR THEIR REFERENT POWER

RECIPIENTS CURRENT 'EFFECT "THEN" CALCULATE THE MARGINAL EFFECT OF THE

'REFERENT POWER
If $([time_period] / 365) < 1$ Then

POWER 'EQUATION THAT CALCULATES PROVIDERS CURRENT REFERENT

DIALOGUE 'MARGANALISED BY THE TIME IN WHICH THEY HAVE ENGAGED IN

'WITH THE PROVIDER

$$[Agent].Offset(2, 25) = ([Agent].Offset(2, 7) + _ [Agent].Offset(2, 9)) / 2) * ([time_period] / 365)$$

CALCULATE ITS FULL 'IF PROVIDER HAS ENGAGED IN DIALOGUE LONG ENOUGH THEN

POTENTIAL
Else

POWER AT ITS 'EQUATION THAT CALCULATED PROVIDERS CURRENT REFERENT

'FULL POTENTIAL

$$[Agent].Offset(2, 25) = ([Agent].Offset(2, 7) + _ [Agent].Offset(2, 9)) / 2)$$

'END OF CONDITIONAL LOGIC

End If

POTENTIAL 'CONDITIONAL LOGIC THAT STATES, "IF" PROVIDER HAS A LOW

HAVE ENGAGED 'OF ESTABLISHING REFERENT POWER, "THEN" CHECK TO SEE IF THEY

FULL EFFECT 'IN DIALOGUE LONG ENOUGH FOR THEIR REFERENT POWER TO HAVE ITS

ElseIf $(([Agent].Offset(2, 7) + [Agent].Offset(2, 9)) / 2) > 0$ Then

ENAGED IN DIALOGUE 'CONDITIONAL LOGIC THAT STATES, "IF" THE PROVIDER HAS NOT

TO HAVE ITS FULL 'WITH THE PROVIDER LONG ENOUGH FOR THEIR REFERENT POWER

RECIPIENTS CURRENT 'EFFECT "THEN" CALCULATE THE MARGINAL EFFECT OF THE

'REFERENT POWER
If $([time_period] / 1095) < 1$ Then

POWER 'EQUATION THAT CALCULATES PROVIDERS CURRENT REFERENT

DIALOGUE 'MARGANALISED BY THE TIME IN WHICH THEY HAVE ENGAGED IN

'WITH THE PROVIDER

$$[Agent].Offset(2, 25) = ([Agent].Offset(2, 7) + _ [Agent].Offset(2, 9)) / 2) * ([time_period] / 1095)$$

CALCULATE ITS FULL 'IF PROVIDER HAS ENGAGED IN DIALOGUE LONG ENOUGH THEN

POTENTIAL
Else

POWER AT ITS 'EQUATION THAT CALCULATED PROVIDERS CURRENT REFERENT

'FULL POTENTIAL

$$[Agent].Offset(2, 25) = ([Agent].Offset(2, 7) + _ [Agent].Offset(2, 9)) / 2)$$

'END OF CONDITIONAL LOGIC
End If

'END OF CONDITIONAL LOGIC
End If

'-----

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'CONDITIONAL LOGIC FOR CALCULATING INITIAL LEVEL OF
UNCERTAINTY ASSOCIATED
'WITH THE SUBMITTED EVIDENCE
'KEY:
'* (1, -1) =
'* (1, 19) =
'* "SI" = SALT INTAKE CASE STUDY CHARACTERISED BY LOW
UNCERTAINTY
'* "AI" = AVIAN INFLUENZA CASE STUDY CHARACTERISED BY MEDIUM
UNCERTAINTY
'* "NW" = NUCLEAR WASTE DISPOSAL CHARACTERISED BY HIGH
UNCERTAINTY

'CONDITIONAL LOGIC THAT STATES IF NO CASE STUDY IS SPECIFIED DO
NOT
'CONSTRAIN AMOUNT OF UNCERTAINTY THAT CAN CHARACTERISE
THE SUBMITTED EVIDENCE
If [Agent].Offset(1, -1) = "" Then

'EQUATION CALCULATING RECIPIENTS CURRENT KNOWLEDGE
UNCERTAINTY
[Agent].Offset(1, 35) = Int((100 - 0 + 1) * Rnd + 0) / 100

'EQUATION CALCULATING PROVIDERS CURRENT KNOWLEDGE
UNCERTAINTY
[Agent].Offset(2, 35) = [Agent].Offset(1, 35)

ElseIf [Agent].Offset(1, -1) = "SI" Then

'EQUATION CALCULATING RECIPIENTS CURRENT KNOWLEDGE
UNCERTAINTY
[Agent].Offset(1, 35) = Int((29 - 0 + 1) * Rnd + 0) / 100

'EQUATION CALCULATING PROVIDERS CURRENT KNOWLEDGE
UNCERTAINTY
[Agent].Offset(2, 35) = [Agent].Offset(1, 35)

ElseIf [Agent].Offset(1, -1) = "AI" Then

'EQUATION CALCULATING RECIPIENTS CURRENT KNOWLEDGE
UNCERTAINTY
[Agent].Offset(1, 35) = Int((59 - 30 + 1) * Rnd + 30) / 100

'EQUATION CALCULATING PROVIDERS CURRENT KNOWLEDGE
UNCERTAINTY

```

```

[Agent].Offset(2, 35) = [Agent].Offset(1, 35)

ElseIf [Agent].Offset(1, -1) = "NW" Then

'EQUATION CALCULATING RECIPIENTS CURRENT KNOWLEDGE
UNCERTAINTY
[Agent].Offset(1, 35) = Int((99 - 60 + 1) * Rnd + 60) / 100

'EQUATION CALCULATING PROVIDERS CURRENT KNOWLEDGE
UNCERTAINTY
[Agent].Offset(2, 35) = [Agent].Offset(1, 35)

End If

'-----
'CONDITIONAL LOGIC TO CALCULATE EACH AGENTS INITIAL MOTIVATION
TO PROCESS
'THE SUBMITTED EVIDENCE SYSTEMATICALLY AND CAREFULLY
'KEY:
'* (1, 19) = RECIPIENTS CURRENT UNCERTAINTY
'* (1, 1) = RECIPIENTS CURRENT OPENESS TO EXPERIENCE
'* (1, 21) = RECIPIENTS CURRENT MOTIVATION
'* (2, 19) = PROVIDERS CURRENT UNCERTAINTY
'* (2, 1) = PROVIDERS CURRENT OPENESS TO EXPERIENCE
'* (2, 21) = PROVIDERS CURRENT MOTIVATION

'CONDITIONAL LOGIC THAT STATES "IF" CURRENT UNCERTAINTY IS
HIGH AND
'RECIPIENT HAS A OPENESS TO EXPERIENCE (OR THE OPPOSITE IS TRUE)
""THEN" THEY WILL BE POSITIVELY MOTIVATED TO PROCESS THE
EVIDENCE
'SYSTEMATICALLY AND CAREFULLY
If [Agent].Offset(1, 35) > 0.6 And [Agent].Offset(1, 1) _
> 0.55 Or [Agent].Offset(1, 35) < 0.29 And [Agent].Offset(1, 1) _
< 0.45 Then

'EQUATION THAT CALCULATES RECIPIENTS CURRENT MOTIVATION
[Agent].Offset(1, 21) = Int((100 - 50 + 1) * Rnd + 50) / 100

'CONDITIONAL LOGIC THAT STATES, "IF" CURRENT UNCERTAINTY IS
LOW AND
'RECIPIENT HAS A HIGH OPENESS TO EXPERIENCE (OR THE OPPOSITE IS
TRUE),
""THEN" THEY WILL BE NEGATIVELY MOTIVATED TO PROCESS THE
EVIDENCE
'SYSTEMETICALLY AND CAREFULLY

```

ElseIf [Agent].Offset(1, 35) < 0.3 And [Agent].Offset(1, 1) _
 > 0.55 Or [Agent].Offset(1, 35) > 0.6 And [Agent].Offset(1, 1) _
 < 0.45 Then

 'EQUATION THAT CALCULATES RECIPENTS CURRENT MOTIVATION
 [Agent].Offset(1, 21) = Int((50 - 0 + 1) * Rnd + 0) / 100

 'END OF CONDITIONAL LOGIC
 End If

 'CONDITIONAL LOGIC THAT STATES "IF" CURRENT UNCERTAINTY IS
 HIGH AND
 'PROVIDERS HAS A OPENESS TO EXPERIENCE (OR THE OPPOSITE IS
 TRUE)
 "THEN" THEY WILL BE POSITIVELY MOTIVATED TO PROCESS THE
 EVIDENCE
 'SYSTEMATICALLY AND CAREFULLY
 If [Agent].Offset(2, 35) > 0.6 And [Agent].Offset(2, 1) _
 > 0.55 Or [Agent].Offset(2, 35) < 0.29 And [Agent].Offset(2, 1) _
 < 0.45 Then

 'EQUATION THAT CALCULATES PROVIDERS CURRENT MOTIVATION
 [Agent].Offset(2, 21) = Int((100 - 50 + 1) * Rnd + 50) / 100

 'CONDITIONAL LOGIC THAT STATES, "IF" CURRENT UNCERTAINTY IS
 LOW AND
 'PROVIDERS HAS A HIGH OPENESS TO EXPERIENCE (OR THE OPISITE IS
 TRUE),
 "THEN" THEY WILL BE NEGATIVELY MOTIVATED TO PROCESS THE
 EVIDENCE
 'SYSTEMETICALLY AND CAREFULLY
 ElseIf [Agent].Offset(2, 35) < 0.3 And [Agent].Offset(2, 1) _
 > 0.55 Or [Agent].Offset(2, 35) > 0.6 And [Agent].Offset(2, 1) _
 < 0.45 Then

 'EQUATION THAT CALCULATES PROVIDERS CURRENT MOTIVATION
 [Agent].Offset(2, 21) = Int((50 - 0 + 1) * Rnd + 0) / 100

 'END OF CONDITIONAL LOGIC
 End If

 '-----

 'CONDITIONAL LOGIC FOR CALCULATING EACH AGENTS INTIAL POSITIVE
 AND NEGATIVE PRIOR KNOWLEDGE
 'KEY:

'* (1, 13) = RECIPIENTS CURRENT POSITIVE PRIOR KNOWLEDGE (PPK)
 '* (1, 15) = RECIPIENTS CURRENT NEGATIVE PRIOR KNOWLEDGE (NPK)
 '* (2, 13) = PROVIDERS CURRENT POSITIVE PRIOR KNOWLEDGE (PPK)
 '* (2, 15) = PROVIDERS CURRENT NEGATIVE PRIOR KNOWLEDGE (NPK)

'EQUATION TO CALCULATE RECIPIENTS CURRENT PPK
 [Agent].Offset(1, 13) = Int((100 - 50 + 1) * Rnd + 50) / 100

'EQUATION TO CALCULATE RECIPIENTS CURRENT NPK
 [Agent].Offset(1, 15) = Int((50 - 0 + 1) * Rnd + 0) / 100

'EQUATION TO CALCULATE PROVIDERS CURRENT PPK
 [Agent].Offset(2, 13) = Int((100 - 50 + 1) * Rnd + 50) / 100

'EQUATION TO CALCULATE PROVIDERS CURRENT NPK
 [Agent].Offset(2, 15) = Int((50 - 0 + 1) * Rnd + 0) / 100

'-----
 'LOGIC TO CALCULATE EACH AGENTS INITIAL WILLINGNESS

'KEY:
 '* (1,13) = RECIPIENTS CURRENT POSITIVE PRIOR KNOWLEDGE (PPK)
 '* (1,15) = RECIPIENTS CURRENT NEGATIVE PRIOR KNOWLEDGE (NPK)
 '* (1,15) = RECIPIENTS CURRENT WILLINGNESS
 '* (1,15) = PROVIDERS CURRENT POSITIVE PRIOR KNOWLEDGE (PPK)
 '* (1,15) = PROVIDERS CURRENT NEGATIVE PRIOR KNOWLEDGE (NPK)
 '* (1,15) = PROVIDERS CURRENT WILLINGNESS

'EQUATION TO CALCULATE RECIPIENTS CURRENT WILLINGNESS
 [Agent].Offset(1, 17) = [Agent].Offset(1, 13) + [Agent].Offset(1, 15)

'EQUATION TO CALCULATE PROVIDERS CURRENT WILLINGNESS
 [Agent].Offset(2, 17) = [Agent].Offset(2, 13) + [Agent].Offset(2, 15)

'-----
 'LOGIC FOR CALCULATING EACH AGENT'S INITIAL RECEPTIVITY

'KEY:
 '* (1,11) = RECIPIENTS CURRENT PROPENSITY TO TRUST
 '* (1,17) = RECIPIENTS CURRENT WILLINGNESS
 '* (1,21) = RECIPIENTS CURRENT MOTIVATION
 '* (1,23) = RECIPIENTS CURRENT TRUSTWORTHINESS
 '* (1,25) = RECIPIENTS CURRENT REFERENT POWER
 '* (1,27) = RECIPIENTS CURRENT RECEPTIVITY
 '* (2,11) = PROVIDERS CURRENT PROPENSITY TO TRUST
 '* (2,17) = PROVIDERS CURRENT WILLINGNESS

```

** (2,21) = PROVIDERS CURRENT MOTIVATION
** (2,23) = PROVIDERS CURRENT TRUSTWORTHINESS
** (2,25) = PROVIDERS CURRENT REFERENT POWER
** (2,27) = PROVIDERS CURRENT RECEPTIVITY

```

'LOGIC FOR CALCULATING RECIPIENTS INTIAL RECEPTIVITY

'EQUATION TO CALCULATE RECIPIENTS CURRENT RECEPTIVITY

```

[Agent].Offset(1, 27) = ([Agent].Offset(1, 11) + _
[Agent].Offset(1, 17) + [Agent].Offset(1, 21) + _
[Agent].Offset(2, 23) + [Agent].Offset(2, 25)) / 5

```

```

[Agent].Offset(1, 28) = [Agent].Offset(1, 27)

```

'LOGIC FOR CALCULATING PROVIDERS INTIAL RECEPTIVITY

'EQUATION TO CALCULATE PROVIDERS CURRENT RECEPTIVITY

```

[Agent].Offset(2, 27) = ([Agent].Offset(2, 11) + _
[Agent].Offset(2, 17) + [Agent].Offset(2, 21) _
+ [Agent].Offset(1, 23) + [Agent].Offset(1, 25)) / 5

```

```

[Agent].Offset(2, 28) = [Agent].Offset(2, 27)

```

'-----

```

'Logic for calculating the realtive weight that recipients placed on
'the importance of each type of evidence
'where:

```

```

' [Agent].Offset(1,-13) = political
' [Agent].Offset(1,-12) = social
' [Agent].Offset(1,-11) = costly
' [Agent].Offset(1,-10) = technical
' [Agent].Offset(1,-9) = qualitative
' [Agent].Offset(1,-8) = quantitative

```

'Randomly assign weights to each type of evidence for each line in the
[Evidence_log_table]

```

'For i = 1 To 1000000
' If [Rs_det_sb].Offset(i, 1) = "" Then
' [Rs_det_sb].Offset(i, 0) = i
' [x] = [Rs_det_sb].Offset(i, 0)
' i = 1000000
' End If
'Next i

```

```

For i = 1 To 10
[Evidence_log].Offset(i, 0) = i
Next i

```

```

For i = 1 To 10
[Evidence_log].Offset(i, 1) = (Int((100 - 0 + 1) * Rnd + 0) / 100)
[Evidence_log].Offset(i, 2) = (Int((100 - 0 + 1) * Rnd + 0) / 100)
[Evidence_log].Offset(i, 3) = (Int((100 - 0 + 1) * Rnd + 0) / 100)
[Evidence_log].Offset(i, 4) = (Int((100 - 0 + 1) * Rnd + 0) / 100)
[Evidence_log].Offset(i, 5) = (Int((100 - 0 + 1) * Rnd + 0) / 100)
[Evidence_log].Offset(i, 6) = (Int((100 - 0 + 1) * Rnd + 0) / 100)
Next i

```

```

For i = 1 To 10
[Evidence_log].Offset(i, 7) = [Evidence_log].Offset(i, 1) + _
[Evidence_log].Offset(i, 2) + [Evidence_log].Offset(i, 3) + _
[Evidence_log].Offset(i, 4) + [Evidence_log].Offset(i, 5) + _
[Evidence_log].Offset(i, 6)
Next i

```

```

For i = 1 To 10
[Evidence_log].Offset(i, 8) = [Evidence_log].Offset(i, 1) + _
[Evidence_log].Offset(i, 2) + [Evidence_log].Offset(i, 3) + _
[Evidence_log].Offset(i, 4) + [Evidence_log].Offset(i, 5) + _
[Evidence_log].Offset(i, 6)
Next i

```

```

For i = 1 To 10
[Evidence_log].Offset(i, 9) = (1 - ([Evidence_log].Offset(i, 8) / _
[Evidence_log].Offset(i, 7))) * 100
Next i

```

```

' [Evidence_log].Offset(11, 10) = [Evidence_log].Offset(10, 10) + _
'[Evidence_log].Offset(9, 10) + [Evidence_log].Offset(8, 10) + _
'[Evidence_log].Offset(7, 10) + [Evidence_log].Offset(6, 10) + _
'[Evidence_log].Offset(5, 10)

```

Call populate_providers_story_board

End Sub

'SUB ROUTINE THAT CALCULATES RECIPIENT'S INITIAL CONFIDENCE

```

Sub calculate_recipients_initial_confidence()
'KEY:
'* (1, 31) = RECIPIENTS CURRENT CONFIDENCE
'* (1, 32) = RECIPIENTS PREVIOUS CONFIDENCE
'* (1, 27) = RECIPIENTS CURRENT RECEPTIVITY

'EQUATION THAT CALCULATES RECIPIENTS PREVIOUS CONFIDENCE
[Agent].Offset(1, 32) = [Agent].Offset(1, 31)

'EQUATION THAT CALCULATES RECIPIENTS CURRENT CONFIDENCE
[Agent].Offset(1, 31) = [Agent].Offset(1, 27) * [Agent].Offset(2, 31)

End Sub

'SUB ROUTINE THAT CALCULATES PROVIDERS INITIAL RECEPTIVITY
Sub state_providers_initial_confidence()
'KEY:
'* (2, 31) = PROVIDERS CURRENT CONFIDENCE

'EQUATION THAT STATES PROVIDERS INITIAL MEASURE OF CONFIDENCE
'(THIS IS ASSUMES TO ME 100%)
[Agent].Offset(2, 31) = 1

End Sub

'SUB ROUTINE THAT POPULATES RECIPIENTS STORY BOARD WITH
INFORMATION
AND
'RELATING TO UNCERTAINTY ATTACHED TO THE SUBMITTED EVIDENCE
'BOTH POSITIVE AND NEGATIVE KNOWLEDGE RE
'LATING TO THE PROVIDER OF THE
'EVIDENNCE
Sub populate_recipients_story_board()

If [Agent].Offset(1, -4) = "deterministic" Then

If [Rs_det_sb].Offset(2, 0) = "" Then
For i = 1 To 1000000
If [Rs_det_sb].Offset(i, 1) = "" Then
[Rs_det_sb].Offset(i, 0) = i - 1
[x] = [Rs_det_sb].Offset(i, 0)
i = 1000000
End If
Next i

```

```

For i = 1 To [x]

[Rs_det_sb].Offset(i, 0) = (i + 1) - 1

Next i

For i = 1 To [x]
[Rs_det_sb].Offset(i, 2) = [Ps_det_sb].Offset(i, 2)
[Rs_det_sb].Offset(i, 4) = [Ps_det_sb].Offset(i, 4)
[Rs_det_sb].Offset(i, 3) = 1 - ([Rs_det_sb].Offset(i, 2) + [Rs_det_sb].Offset(i, 4))
Next i
For i = 1 To [x]

If [Agent].Offset(2, -5) = "" Then
'PPK
If Rnd() > 0 Then
[Rs_det_sb].Offset(i, 5) = (Int((100 - 50 + 1) * Rnd + 50)) / 100
Else: [recipients_story_board].Offset(i, 5) = 0
End If
'NPK
If Rnd() > 0 Then
[Rs_det_sb].Offset(i, 6) = (Int((50 - 0 + 1) * Rnd + 0)) / 100
Else: [recipients_story_board].Offset(1, 6) = 0
End If

ElseIf [Agent].Offset(2, -5) = "Good" Then
'PPK
If Rnd() < 0.9 Then
[Rs_det_sb].Offset(i, 5) = (Int((100 - 50 + 1) * Rnd + 50)) / 100
Else: [recipients_story_board].Offset(1, 5) = 0
End If
'NPK
If Rnd() > 0.9 Then
[Rs_det_sb].Offset(i, 6) = (Int((50 - 0 + 1) * Rnd + 0)) / 100
Else: [recipients_story_board].Offset(1, 6) = 0
End If

ElseIf [Agent].Offset(2, -5) = "Bad" Then
'PPK
If Rnd() < 0.5 Then
[Rs_det_sb].Offset(i, 5) = (Int((100 - 50 + 1) * Rnd + 50)) / 100
Else: [recipients_story_board].Offset(1, 5) = 0
End If
'NPK
If Rnd() > 0.5 Then
[Rs_det_sb].Offset(i, 6) = (Int((50 - 0 + 1) * Rnd + 0)) / 100

```

```

Else: [recipients_story_board].Offset(1, 6) = 0
End If

ElseIf [Agent].Offset(2, -5) = "Ugly" Then
'PPK
If Rnd() > 0.9 Then
[Rs_det_sb].Offset(i, 5) = (Int((100 - 50 + 1) * Rnd + 50)) / 100
Else: [recipients_story_board].Offset(1, 5) = 0
End If
'NPK
If Rnd() < 0.9 Then
[Rs_det_sb].Offset(i, 6) = (Int((50 - 0 + 1) * Rnd + 0)) / 100
Else: [recipients_story_board].Offset(1, 6) = 0
End If
End If

Next i
End If
End If

```

```

'COMMAND TO CLEAR THE CONTENTS OF THE RECIPIENTS STORY BOARD
[r_story_board_table].ClearContents

```

```

'-----
'ROW 1 to 10 OF RECIPIENTS'S STORY BOARD:
'-----

For i = 1 To 10

'ADD THE ROW NUMBER TO THE FIRST COLUMN OF THE RECIPIENTS'S
STORY BOARD
[recipients_story_board].Offset(i, 0) = i

'RECIPIENT'S ROLE IS TO ASSESS PROVIDERS INFORMATION, THEREFORE
BELIEFS "FOR" AND "AGAINST",
'AND RECORDED UNCERTAINTY ARE COPIED OVER TO RECIPIENTS STORY
BOARD

'EQUATION TO COPY PROVIDERS BELIEF "FOR"
[recipients_story_board].Offset(i, 2) = [Agent].Offset(2, 33)

'EQUATION TO COPY PROVIDERS RECORLD OF UNCERTAINTY

```

```

[recipients_story_board].Offset(i, 3) = [Agent].Offset(2, 35)

```

```

'EQUATION TO COPY PROVIDERS BELIEF "AGAINST"
[recipients_story_board].Offset(i, 4) = [Agent].Offset(2, 37)

```

'Calculating connotation of PPK and NPK attached to the submitted evidence
'To account for this, the presence of a "good", "bad" and "ugly" operators will result in a
'90%, 50% and 10% chance that the recipient recieves PPK and a 10%, 50% and 90%
chance that
'the recipient will receive NPK, respectively.

```

If [Agent].Offset(2, -5) = "" Then
'PPK
If Rnd() > 0 Then
[recipients_story_board].Offset(i, 5) = (Int((100 - 50 + 1) * Rnd + 50)) / 100
Else: [recipients_story_board].Offset(i, 5) = 0
End If
'NPK
If Rnd() > 0 Then
[recipients_story_board].Offset(i, 6) = (Int((50 - 0 + 1) * Rnd + 0)) / 100
Else: [recipients_story_board].Offset(1, 6) = 0
End If

```

```

ElseIf [Agent].Offset(2, -5) = "Good" Then
'PPK
If Rnd() < 0.9 Then
[recipients_story_board].Offset(i, 5) = (Int((100 - 50 + 1) * Rnd + 50)) / 100
Else: [recipients_story_board].Offset(1, 5) = 0
End If
'NPK
If Rnd() > 0.9 Then
[recipients_story_board].Offset(i, 6) = (Int((50 - 0 + 1) * Rnd + 0)) / 100
Else: [recipients_story_board].Offset(1, 6) = 0
End If

```

```

ElseIf [Agent].Offset(2, -5) = "Bad" Then
'PPK
If Rnd() < 0.5 Then
[recipients_story_board].Offset(i, 5) = (Int((100 - 50 + 1) * Rnd + 50)) / 100
Else: [recipients_story_board].Offset(1, 5) = 0
End If
'NPK
If Rnd() > 0.5 Then
[recipients_story_board].Offset(i, 6) = (Int((50 - 0 + 1) * Rnd + 0)) / 100
Else: [recipients_story_board].Offset(1, 6) = 0
End If

```

```

ElseIf [Agent].Offset(2, -5) = "Ugly" Then
    'PPK
    If Rnd() > 0.9 Then
        [recipients_story_board].Offset(i, 5) = (Int((100 - 50 + 1) * Rnd + 50)) / 100
    Else: [recipients_story_board].Offset(1, 5) = 0
    End If
    'NPK
    If Rnd() < 0.9 Then
        [recipients_story_board].Offset(i, 6) = (Int((50 - 0 + 1) * Rnd + 0)) / 100
    Else: [recipients_story_board].Offset(1, 6) = 0
    End If
End If

Next i

End Sub
'SUB ROUTINE TO POPULATE RECIPIENTS DETERMINISTIC STORY BOARD
Sub populate_recipients_deterministic_table()

'CLEAR CONTENTS OF RECIPIENTS DETERMINISTIC STORY BOARD
[rs_deterministic_table].ClearContents

'CALCULATE MEASURE OF UNCERTAINTY, POSITIVE AND NEGATIVE PRIOR
KNOWLEGE
'FOR THE FIRST INITIAL DAY
[Rs_det_sb].Offset(1, 0).Select
ActiveCell.Offset(0, 2) = (Int((100 - 0 + 1) * Rnd + 0)) / 100
ActiveCell.Offset(0, 3) = (Int((100 - 0 + 1) * Rnd + 0)) / 100
ActiveCell.Offset(0, 4) = (Int((0 - (-100) + 1) * Rnd + (-100))) / 100

'LOGIC THAT CALCULATES A RANDOM MEASURE OF UNCERTAINTY,
POSITIVE PRIOR KNOWLEDGE AND
'NEGATIVE PRIOR KNOWLEDGE BY FIRST DEFINING "i" AS A NUMBER FROM
ZERO TO THE MAX NO.
'OF DAYS THAT THE RECIPIENTS LEGITIMATE POWER PERMITS THEM TO
ENGAGE IN DIALOUGE WITH
'THE PROVIDER
[Rs_det_sb].Offset([legitimate_power4], 0) = [legitimate_power4]
[Rs_det_sb].Offset([legitimate_power4], 2) = (Int((100 - 0 + 1) * Rnd + 0)) / 100
[Rs_det_sb].Offset([legitimate_power4], 3) = (Int((100 - 0 + 1) * Rnd + 0)) / 100
[Rs_det_sb].Offset([legitimate_power4], 4) = (Int((0 - (-100) + 1) * Rnd + (-100))) /

```

100

```

Next i

End Sub

'SUB ROUTINE TO POPULATE PROVIDERS DETERMINISTIC STORY BOARD
Sub populate_providers_deterministic_table()

'CLEAR CONTENTS OF PROVIDERS DETERMINISTIC STORY BOARD
[ps_deterministic_table].ClearContents

'CALCULATE MEASURE OF UNCERTAINTY, POSITIVE AND NEGATIVE PRIOR
KNOWLEGE
'FOR THE FIRST INITIAL DAY
[Ps_det_sb].Offset(1, 0).Select
ActiveCell.Offset(0, 2) = (Int((100 - 0 + 1) * Rnd + 0)) / 100
ActiveCell.Offset(0, 3) = (Int((100 - 0 + 1) * Rnd + 0)) / 100
ActiveCell.Offset(0, 4) = (Int((0 - (-100) + 1) * Rnd + (-100))) / 100

'LOGIC THAT CALCULATES A RANDOM MEASURE OF UNCERTAINTY,
POSITIVE PRIOR KNOWLEDGE AND
'NEGATIVE PRIOR KNOWLEDGE BY FIRST DEFINING "i" AS A NUMBER FROM
ZERO TO THE MAX NO.
'OF DAYS THAT THE RECIPIENTS LEGITIMATE POWER PERMITS THEM TO
ENGAGE IN DIALOUGE WITH
'THE PROVIDER
For i = 1 To [legitimate_power4]
    [Ps_det_sb].Offset([legitimate_power4], 0) = [legitimate_power4]
    [Ps_det_sb].Offset([legitimate_power4], 2) = (Int((100 - 0 + 1) * Rnd + 0)) / 100
    [Ps_det_sb].Offset([legitimate_power4], 3) = (Int((100 - 0 + 1) * Rnd + 0)) / 100
    [Ps_det_sb].Offset([legitimate_power4], 4) = (Int((0 - (-100) + 1) * Rnd + (-100))) / 100
Next i

End Sub
Sub populate_recipients_deterministic_story_board_with_a_random_25_day_scenario()

q = GetRnd(x, y, Z)
[Ps_det_sb].Offset(2, 0) = q

x = Rnd()

'CONDITIONAL LOGIC THAT STATES, "IF" THE RANDOM NUMBER ASSIGNED
TO "x" IS ABOVE
If x > 0 And x < 0.29 Then
    For i = 1 To 25
        [Ps_det_sb].Offset([legitimate_power4], 0) = [legitimate_power4]
        [Ps_det_sb].Offset([legitimate_power4], 2) = (Int((100 - 0 + 1) * Rnd + 0)) / 100
    
```

```

[Ps_det_sb].Offset([legitimate_power4], 3) = (Int((100 - 0 + 1) * Rnd + 0)) / 100
[Ps_det_sb].Offset([legitimate_power4], 4) = (Int((0 - (-100) + 1) * Rnd + (-100))) /
100
Next i

End Sub

'SUB ROUTINE THAT PLOTS THE "RND()" AND THE "(Int((100 - 0 + 1) * Rnd + 0)) /
100" FUNCTION
'TO ILLUSTRATE THAT IT PRODUCES A RANDOM PLOT AND DOES NOT
CLUSTER AROUND 0.5, SAY.
Sub test_randomness_of_rnd_function()

'COMMAND TO CLEAR VALUES FROM LAST SIMULATION RUN
[area].ClearContents

'COMMAND RESETTING THE NUMBER OF SIMULATION ITERATIONS
[timepassed] = 0

'LOGIC STATING THAT A RANDOM NUMBER (BETWEEN 0 AND 1) SHOULD
BE GENERATED AS MANY TIMES AS
'THERE ARE SIMULATION RUNS
Do While [Time] > [timepassed]
'EQUATION CALCULATING A RANDOM NUMBER BETWEEN 0 AND 1
USING RND() FUNCTION FOR THE X AXIS
[test_rnd_function].Offset([timepassed], 0) = Rnd()
'EQUATION CALCULATING A RANDOM NUMBER BETWEEN 0 AND 1
USING RND() FUNCTION FOR THE Y AXIS
[test_rnd_function].Offset([timepassed], 1) = Rnd()

'EQUATION CALCULATING A RANDOM NUMBER BETWEEN 0 AND 1
USING INT() FUNCTION FOR THE X AXIS
[test_rnd_function].Offset([timepassed], 10) = (Int((100 - 0 + 1) * Rnd + 0)) / 100
'EQUATION CALCULATING A RANDOM NUMBER BETWEEN 0 AND 1
USING INT() FUNCTION FOR THE Y AXIS
[test_rnd_function].Offset([timepassed], 11) = (Int((100 - 0 + 1) * Rnd + 0)) / 100
[timepassed] = [timepassed] + 1
Loop

End Sub

'SUB ROUTINE THAT POPULATES PROVIDERS STORY BOARD
Sub populate_providers_story_board()

```

```

If [Agent].Offset(1, -4) = "deterministic" Then

```

```

If [Rs_det_sb].Offset(2, 0) = "" Then

```

```

For i = 1 To 1000000
If [Ps_det_sb].Offset(i, 1) = "" Then
[x] = [Rs_det_sb].Offset(i, 0)
i = 1000000
End If
Next i

For i = 1 To [x]

[Ps_det_sb].Offset(i, 0) = (i + 1) - 1

Next i

If [Agent].Offset(1, -1) = "SI" And [Agent].Offset(2, -1) = "SI" Then
For i = 1 To 45
[Ps_det_sb].Offset(i, 2) = (Int((100 - 0 + 1) * Rnd + 0)) / 100
[Ps_det_sb].Offset(i, 3) = (Int((30 - 0 + 1) * Rnd + 0)) / 100
[Ps_det_sb].Offset(i, 4) = 1 - ([Ps_det_sb].Offset(i, 2) + [Ps_det_sb].Offset(i, 2))
Next i
ElseIf [Agent].Offset(1, -1) = "AI" And [Agent].Offset(2, -1) = "AI" Then
For i = 1 To 45
[Ps_det_sb].Offset(i, 2) = (Int((100 - 0 + 1) * Rnd + 0)) / 100
[Ps_det_sb].Offset(i, 3) = (Int((60 - 30 + 1) * Rnd + 30)) / 100
[Ps_det_sb].Offset(i, 4) = 1 - ([Rs_det_sb].Offset(i, 2) + [Ps_det_sb].Offset(i, 2))
Next i
ElseIf [Agent].Offset(1, -1) = "NW" And [Agent].Offset(2, -1) = "NW" Then
For i = 1 To 45
[Ps_det_sb].Offset(i, 2) = (Int((100 - 60 + 1) * Rnd + 60)) / 100
[Ps_det_sb].Offset(i, 3) = (Int((100 - 60 + 1) * Rnd + 60)) / 100
[Ps_det_sb].Offset(i, 4) = 1 - ([Ps_det_sb].Offset(i, 2) + [Ps_det_sb].Offset(i, 2))
Next i
End If

```

```

For i = 1 To [x]

```

```

'If [Agent].Offset(1, 27) > 0 Then

```

```

If [Agent].Offset(1, -6) = "NA" Then
    [Ps_det_sb].Offset(1, 5) = 0
ElseIf [Agent].Offset(1, -6) = "Low" Then
    If Rnd() > Rnd() > Rnd() Then
        [Ps_det_sb].Offset(i, 5) = (Int((100 - 50 + 1) * Rnd + 50)) / 100
    Else: [Ps_det_sb].Offset(i, 5) = 0
    End If
ElseIf [Agent].Offset(1, -6) = "Medium" Then
    If Rnd() > Rnd() > Rnd() Then
        [Ps_det_sb].Offset(i, 5) = (Int((100 - 50 + 1) * Rnd + 50)) / 100
    Else: [Ps_det_sb].Offset(i, 5) = 0
    End If
ElseIf [Agent].Offset(1, -6) = "High" Then
    If Rnd() > Rnd() Then
        [Ps_det_sb].Offset(i, 5) = (Int((100 - 50 + 1) * Rnd + 50)) / 100
    Else: [Ps_det_sb].Offset(i, 5) = 0
    End If
End If

```

```
'Else: [Ps_det_sb].Offset(i, 5) = 0
```

```
'End If
```

```
'If [Agent].Offset(1, 27) > 0 Then
```

```

If [Agent].Offset(1, -7) = "NA" Then
    [Ps_det_sb].Offset(1, 6) = 0
ElseIf [Agent].Offset(1, -7) = "Low" Then
    If Rnd() > Rnd() > Rnd() > Rnd() Then
        [Ps_det_sb].Offset(i, 6) = (Int((50 - 0 + 1) * Rnd + 0)) / 100
    Else: [Ps_det_sb].Offset(i, 6) = 0
    End If
ElseIf [Agent].Offset(1, -7) = "Medium" Then
    If Rnd() > Rnd() > Rnd() Then
        [Ps_det_sb].Offset(i, 6) = (Int((50 - 0 + 1) * Rnd + 0)) / 100
    Else: [Ps_det_sb].Offset(i, 6) = 0
    End If
ElseIf [Agent].Offset(1, -7) = "High" Then
    If Rnd() > Rnd() Then
        [Ps_det_sb].Offset(i, 6) = (Int((50 - 0 + 1) * Rnd + 0)) / 100
    Else: [Ps_det_sb].Offset(i, 6) = 0
    End If
End If

```

```
'Else: [Ps_det_sb].Offset(i, 5) = 0
```

```
'End If
```

```
Next i
```

```
End If
```

```
End If
```

```

'COMMAND TO CLEAR THE CONTENTS OF THE PROVIDERS STORY BOARD
[p_story_board_table].ClearContents

```

```

'-----
'ROW 1 to 10 OF PROVIDERS STORY BOARD:
'-----
For i = 1 To 10

```

```

'ADD THE NUMBER ONE TO THE FIRST ROW AND FIRST COLUMN OF THE
PROVIDERS STORY BOARD
[providers_story_board].Offset(i, 0) = i

```

```
If [Agent].Offset(2, -1) = "" Then
```

```

[providers_story_board].Offset(i, 2) = (Int((100 - 0 + 1) * Rnd + 0)) / 100
[providers_story_board].Offset(i, 4) = (Int((100 - 0 + 1) * Rnd + 0)) / 100
[providers_story_board].Offset(i, 3) = 1 - ([providers_story_board].Offset(i,
2) _
+ [providers_story_board].Offset(i, 4))

```

```
ElseIf [Agent].Offset(2, -1) = "SI" Then
```

```

"belief for
[providers_story_board].Offset(i, 2) = (Int((95 - 0 + 1) * Rnd + 0)) / 100
'uncommitted belief
[providers_story_board].Offset(i, 3) = (Int((30 - 0 + 1) * Rnd + 0)) / 100
'belief against
[providers_story_board].Offset(i, 4) = 1 - ([providers_story_board].Offset(i,
2) _
+ [providers_story_board].Offset(1, 3))

```

```
ElseIf [Agent].Offset(2, -1) = "AI" Then
```

```

'belief for
[providers_story_board].Offset(i, 2) = (Int((80 - 0 + 1) * Rnd + 0)) / 100
'uncommitted belief
[providers_story_board].Offset(i, 3) = (Int((60 - 30 + 1) * Rnd + 30)) / 100
'belief against
[providers_story_board].Offset(i, 4) = 1 - ([providers_story_board].Offset(i,
2) _
+ [providers_story_board].Offset(1, 3))

```

```

ElseIf [Agent].Offset(2, -1) = "NW" Then

```

```

'belief for
[providers_story_board].Offset(i, 2) = (Int((60 - 0 + 1) * Rnd + 0)) / 100
'uncommitted belief
[providers_story_board].Offset(i, 3) = (Int((100 - 60 + 1) * Rnd + 60)) /
100
'belief against
[providers_story_board].Offset(i, 4) = 1 - ([providers_story_board].Offset(i,
2) _
+ [providers_story_board].Offset(i, 3))
End If

```

'THE FOLLOWING LOGIC STATES THAT IF THE RECIPIENT HAS THE
DISCRETION TO ISSUE
'REWARD AND COERCIVE AND THEN CHECK THEIR POLICY ON USING IT
AND APPLY WHERE
'APPLICABLE BY UPDATING PROVIDER'S PPK AND NPK, RESPECTIVELY.

```

'Policy on using reward power where
""NA" = reward power is not available to the recipient
""Low" = reward power is available and the current policy is to only use if there
has
' been a three-fold increase in recipient's receptivity
""Medium" = reward power is available and the current policy is to only issue it if
there has
' been a two-fold increase in recipient's receptivity
""High" = reward power is available and the current policy is to only use it if there
has
' been an increase in the recipients receptivity

```

```

If [Agent].Offset(1, 27) > 0 Then

```

```

If [Agent].Offset(1, -6) = "NA" Then
[providers_story_board].Offset(1, 5) = 0
ElseIf [Agent].Offset(1, -6) = "Low" Then

```

```

If [data_log.].Offset([time_period] + 1, 18) > _
[data_log.].Offset([time_period], 18) And _
[data_log.].Offset([time_period] + 1, 18) > _
[data_log.].Offset([time_period] - 1, 18) And _
[data_log.].Offset([time_period] + 1, 18) > _
[data_log.].Offset([time_period] - 2, 18) Then
[providers_story_board].Offset(i, 5) = (Int((100 - 50 + 1) * Rnd + 50)) / 100
Else: [providers_story_board].Offset(i, 5) = 0
End If

```

```

ElseIf [Agent].Offset(1, -6) = "Medium" Then
If [data_log.].Offset([time_period] + 1, 18) _
> [data_log.].Offset([time_period], 18) And _
[data_log.].Offset([time_period] + 1, 18) > _
[data_log.].Offset([time_period] - 1, 18) Then
[providers_story_board].Offset(i, 5) = (Int((100 - 50 + 1) * Rnd + 50)) / 100
Else: [providers_story_board].Offset(i, 5) = 0
End If

```

```

ElseIf [Agent].Offset(1, -6) = "High" Then
If [data_log.].Offset([time_period] + 1, 18) > _
[data_log.].Offset([time_period], 18) Then
[providers_story_board].Offset(i, 5) = (Int((100 - 50 + 1) * Rnd + 50)) / 100
End If
End If

```

```

Else: [providers_story_board].Offset(i, 5) = 0

```

```

End If

```

```

If [Agent].Offset(1, 27) > 0 Then

```

```

If [Agent].Offset(1, -7) = "NA" Then
[providers_story_board].Offset(1, 6) = 0
ElseIf [Agent].Offset(1, -7) = "Low" Then
If [data_log.].Offset([time_period] + 1, 18) > _
[data_log.].Offset([time_period], 18) And _
[data_log.].Offset([time_period] + 1, 18) > _
[data_log.].Offset([time_period] - 1, 18) And _
[data_log.].Offset([time_period] + 1, 18) > _
[data_log.].Offset([time_period] - 2, 18) Then
[providers_story_board].Offset(i, 6) = (Int((50 - 0 + 1) * Rnd + 0)) / 100
Else: [providers_story_board].Offset(i, 6) = 0
End If

```

```

ElseIf [Agent].Offset(1, -7) = "Medium" Then
If [data_log.].Offset([time_period] + 1, 18) > _
[data_log.].Offset([time_period], 18) And _

```

```

        [data_log.].Offset([time_period] + 1, 18) > _
        [data_log.].Offset([time_period] - 1, 18) Then
        [providers_story_board].Offset(i, 6) = (Int((50 - 0 + 1) * Rnd + 0)) / 100
    Else: [providers_story_board].Offset(i, 6) = 0
    End If
ElseIf [Agent].Offset(1, -7) = "High" Then
    If [data_log.].Offset([time_period] + 1, 18) > _
    [data_log.].Offset([time_period], 18) Then
    [providers_story_board].Offset(i, 6) = (Int((50 - 0 + 1) * Rnd + 0)) / 100
    Else: [providers_story_board].Offset(i, 6) = 0
    End If
End If

Else: [providers_story_board].Offset(i, 5) = 0

End If
Next i

End Sub

Sub log_providers_data()

If [Agent].Offset(
'TIME ENGAGED IN DIALOGUE
[data_log.].Offset([time_period] + 1, 31) = [time_period]
'TYPE OF CASE STUDY
[data_log.].Offset([time_period] + 1, 32) = [Agent].Offset(2, -1)
'TYPE OF REGIME
[data_log.].Offset([time_period] + 1, 33) = [Agent].Offset(2, -4)
'PERSONALITY TYPE
[data_log.].Offset([time_period] + 1, 34) = [Agent].Offset(2, 0)
'OPENNESS TO EXPERIENCE
[data_log.].Offset([time_period] + 1, 35) = [Agent].Offset(2, 1)
'CONSCIENTIOUSNESS
[data_log.].Offset([time_period] + 1, 36) = [Agent].Offset(2, 3)
'EXTROVERSION
[data_log.].Offset([time_period] + 1, 37) = [Agent].Offset(2, 5)
'AGREEABLENESS
[data_log.].Offset([time_period] + 1, 38) = [Agent].Offset(2, 7)
'EMOTIONAL STABILITY
[data_log.].Offset([time_period] + 1, 39) = [Agent].Offset(2, 9)
'TYPE OF OPERATOR
[data_log.].Offset([time_period] + 1, 40) = [Agent].Offset(2, -5)

```

```

'PROPENSITY TO TRUST
[data_log.].Offset([time_period] + 1, 41) = [Agent].Offset(2, 11)
'PPK
[data_log.].Offset([time_period] + 1, 42) = [Agent].Offset(2, 13)
'NPK
[data_log.].Offset([time_period] + 1, 43) = [Agent].Offset(2, 15)
'WILLINGNESS
[data_log.].Offset([time_period] + 1, 44) = [Agent].Offset(2, 17)
'MOTIVATION TO PROCESS
[data_log.].Offset([time_period] + 1, 45) = [Agent].Offset(2, 21)
'MOTIVATION TO SHARE
[data_log.].Offset([time_period] + 1, 46) = [Agent].Offset(2, 19)
'TRUSTWORTHINESS
[data_log.].Offset([time_period] + 1, 47) = [Agent].Offset(2, 23)
'REFERENT POWER
[data_log.].Offset([time_period] + 1, 48) = [Agent].Offset(2, 25)
'RECEPTIVITY
[data_log.].Offset([time_period] + 1, 49) = [Agent].Offset(2, 27)
'CONFIDENCE
[data_log.].Offset([time_period] + 1, 50) = [Agent].Offset(2, 31)
'BELIEF "FOR"
[data_log.].Offset([time_period] + 1, 51) = [Agent].Offset(2, 33)
'UNCERTAINTY
[data_log.].Offset([time_period] + 1, 52) = [Agent].Offset(2, 35)
'BELIEF "AGAINST"
[data_log.].Offset([time_period] + 1, 53) = [Agent].Offset(2, 37)

```

End Sub

'SUB ROUTINE THAT LOGS RESCIPENTS RESULTS OF EACH SIMULATION

RUN

Sub log_recipients_data()

```

'TIME ENGAGED IN DIALOGUE
[data_log.].Offset([time_period] + 1, 0) = [time_period]
'TYPE OF CASE STUDY
[data_log.].Offset([time_period] + 1, 1) = [Agent].Offset(1, -1)
'TYPE OF REGIME
[data_log.].Offset([time_period] + 1, 2) = [Agent].Offset(1, -4)
'PERSONALITY TYPE
[data_log.].Offset([time_period] + 1, 3) = [Agent].Offset(1, 0)
'OPENNESS TO EXPERIENCE
[data_log.].Offset([time_period] + 1, 4) = [Agent].Offset(1, 1)
'CONSCIENTIOUSNESS
[data_log.].Offset([time_period] + 1, 5) = [Agent].Offset(1, 3)
'EXTROVERSION
[data_log.].Offset([time_period] + 1, 6) = [Agent].Offset(1, 5)

```

```

'AGREEABLENESS
[data_log..Offset([time_period] + 1, 7) = [Agent].Offset(1, 7)
'EMOTIONAL STABILITY
[data_log..Offset([time_period] + 1, 8) = [Agent].Offset(1, 9)
'TYPE OF OPERATOR
[data_log..Offset([time_period] + 1, 9) = [Agent].Offset(1, -5)
'PROPENSITY TO TRUST
[data_log..Offset([time_period] + 1, 10) = [Agent].Offset(1, 11)
'PPK
[data_log..Offset([time_period] + 1, 11) = [Agent].Offset(1, 13)
'NPK
[data_log..Offset([time_period] + 1, 12) = [Agent].Offset(1, 15)
'WILLINGNESS
[data_log..Offset([time_period] + 1, 13) = [Agent].Offset(1, 17)
'MOTIVATION TO PROCESS
[data_log..Offset([time_period] + 1, 14) = [Agent].Offset(1, 21)
'MOTIVATION TO SHARE
[data_log..Offset([time_period] + 1, 15) = [Agent].Offset(1, 19)
'TRUSTWORTHINESS
[data_log..Offset([time_period] + 1, 16) = [Agent].Offset(1, 23)
'REFERENT POWER
[data_log..Offset([time_period] + 1, 17) = [Agent].Offset(1, 25)
'RECEPTIVITY
[data_log..Offset([time_period] + 1, 18) = [Agent].Offset(1, 27)
'CONFIDENCE
[data_log..Offset([time_period] + 1, 19) = [Agent].Offset(1, 31)
'BELIEF "FOR"
[data_log..Offset([time_period] + 1, 20) = [Agent].Offset(1, 33)
'UNCERTAINTY
[data_log..Offset([time_period] + 1, 21) = [Agent].Offset(1, 35)
'BELIEF "AGAINST"
[data_log..Offset([time_period] + 1, 22) = [Agent].Offset(1, 37)
'CONFIDENCE LEVEL
[data_log..Offset([time_period] + 1, 23) = [Agent].Offset(1, 31)
'overall confidence
[data_log..Offset([time_period] + 1, 24) = [Agent].Offset(1, 29)

If [Agent].Offset(1, -1) = "SI" And [Agent].Offset(1, 1) > 0.55 Then

    [Proof_of_concept].Offset([time_period] + 1, 1) = [Agent].Offset(1, 19)

ElseIf [Agent].Offset(1, -1) = "SI" And [Agent].Offset(1, 1) > 0.45 Then

    [Proof_of_concept].Offset([time_period] + 1, 2) = [Agent].Offset(1, 19)

ElseIf [Agent].Offset(1, -1) = "SI" And [Agent].Offset(1, 1) > 0 Then

```

operator

```

    [Proof_of_concept].Offset([time_period] + 1, 3) = [Agent].Offset(1, 19)

ElseIf [Agent].Offset(1, -1) = "AI" And [Agent].Offset(1, 1) > 0.55 Then

    [Proof_of_concept].Offset([time_period] + 1, 4) = [Agent].Offset(1, 19)

ElseIf [Agent].Offset(1, -1) = "AI" And [Agent].Offset(1, 1) > 0.45 Then

    [Proof_of_concept].Offset([time_period] + 1, 5) = [Agent].Offset(1, 19)

ElseIf [Agent].Offset(1, -1) = "AI" And [Agent].Offset(1, 1) > 0 Then

    [Proof_of_concept].Offset([time_period] + 1, 6) = [Agent].Offset(1, 19)

ElseIf [Agent].Offset(1, -1) = "NW" And [Agent].Offset(1, 1) > 0.55 Then

    [Proof_of_concept].Offset([time_period] + 1, 7) = [Agent].Offset(1, 19)

ElseIf [Agent].Offset(1, -1) = "NW" And [Agent].Offset(1, 1) > 0.45 Then

    [Proof_of_concept].Offset([time_period] + 1, 8) = [Agent].Offset(1, 19)

ElseIf [Agent].Offset(1, -1) = "NW" And [Agent].Offset(1, 1) > 0 Then

    [Proof_of_concept].Offset([time_period] + 1, 9) = [Agent].Offset(1, 19)

End If

'document how willing regulator is when faced with "good", "bad" and "ugly"

If [Agent].Offset(1, -5) = "Good" And [Agent].Offset(1, 0) = "negotiator" Then

    [Proof_of_concept].Offset([time_period] + 1, 11) = [Agent].Offset(1, 17)

ElseIf [Agent].Offset(1, -5) = "Bad" And [Agent].Offset(1, 0) = "negotiator" Then

    [Proof_of_concept].Offset([time_period] + 1, 12) = [Agent].Offset(1, 17)

ElseIf [Agent].Offset(1, -5) = "Ugly" And [Agent].Offset(1, 0) = "negotiator" Then

    [Proof_of_concept].Offset([time_period] + 1, 13) = [Agent].Offset(1, 17)

ElseIf [Agent].Offset(1, -5) = "Good" And [Agent].Offset(1, 0) = "aggressor" Then

```

```

[Proof_of_concept].Offset([time_period] + 1, 14) = [Agent].Offset(1, 17)

ElseIf [Agent].Offset(1, -5) = "Bad" And [Agent].Offset(1, 0) = "aggressor" Then

    [Proof_of_concept].Offset([time_period] + 1, 15) = [Agent].Offset(1, 17)

ElseIf [Agent].Offset(1, -5) = "Ugly" And [Agent].Offset(1, 0) = "aggressor" Then

    [Proof_of_concept].Offset([time_period] + 1, 16) = [Agent].Offset(1, 17)

ElseIf [Agent].Offset(1, -5) = "Good" And [Agent].Offset(1, 0) = "submissive" Then

    [Proof_of_concept].Offset([time_period] + 1, 17) = [Agent].Offset(1, 17)

ElseIf [Agent].Offset(1, -5) = "Bad" And [Agent].Offset(1, 0) = "submissive" Then

    [Proof_of_concept].Offset([time_period] + 1, 19) = [Agent].Offset(1, 17)

ElseIf [Agent].Offset(1, -5) = "Ugly" And [Agent].Offset(1, 0) = "submissive" Then

    [Proof_of_concept].Offset([time_period] + 1, 20) = [Agent].Offset(1, 17)

ElseIf [Agent].Offset(1, -5) = "Good" And [Agent].Offset(1, 0) = "avoider" Then

    [Proof_of_concept].Offset([time_period] + 1, 21) = [Agent].Offset(1, 17)

ElseIf [Agent].Offset(1, -5) = "Bad" And [Agent].Offset(1, 0) = "avoider" Then

    [Proof_of_concept].Offset([time_period] + 1, 22) = [Agent].Offset(1, 17)

ElseIf [Agent].Offset(1, -5) = "Ugly" And [Agent].Offset(1, 0) = "avoider" Then

    [Proof_of_concept].Offset([time_period] + 1, 23) = [Agent].Offset(1, 17)

End If

```

End Sub

```

'SUB ROUTINE THAT SIGN POSTS EXCEL WHERE TO GO TO UPDATES
PROVIDERS DETAILS
'ACCORDING TO THE REGIME BEING RUN

```

```

Sub update_providers_details_with_appropriate_scenario()

    If [Agent].Offset(2, -4) = "high unc." Then
        Call update_providers_details_with_scenario_characterised_by_greatest_uncertainty

    ElseIf [Agent].Offset(2, -4) = "low unc." Then
        Call update_providers_details_with_scenario_characterised_by_least_uncertainty

    ElseIf [Agent].Offset(2, -4) = "high PPK" Then
        Call update_providers_details_with_scenario_characterised_by_greatest_PPK

    ElseIf [Agent].Offset(2, -4) = "low PPK" Then
        Call update_providers_details_with_scenario_characterised_by_least_PPK

    ElseIf [Agent].Offset(2, -4) = "high NPK" Then
        Call update_providers_details_with_scenario_characterised_by_greatest_NPK

    ElseIf [Agent].Offset(2, -4) = "low NPK" Then
        Call update_providers_details_with_scenario_characterised_by_least_NPK

    ElseIf [Agent].Offset(2, -4) = "random" Then
        Call randomly_select_a_scenario_and_update_providers_details

    ElseIf [Agent].Offset(2, -4) = "deterministic" Then
        Call update_providers_details_according_to_deterministic_story_board

End If

```

```

End Sub
'SUB ROUTINE THAT SIGN POSTS EXCEL WHERE TO GO TO UPDATES
RECIPIENTS DETAILS
'ACCORDING TO THE REGIME BEING RUN
Sub update_recipients_details_with_appropriate_scenario()

```

```

    If [Agent].Offset(1, -4) = "high unc." Then
        Call update_recipients_details_with_scenario_characterised_by_greatest_uncertainty

    ElseIf [Agent].Offset(1, -4) = "low unc." Then
        Call update_providers_details_with_scenario_characterised_by_least_uncertainty

    ElseIf [Agent].Offset(1, -4) = "high PPK" Then
        Call update_recipients_details_with_scenario_characterised_by_greatest_PPK

    ElseIf [Agent].Offset(1, -4) = "low PPK" Then
        Call update_recipients_details_with_scenario_characterised_by_least_PPK

```

```

ElseIf [Agent].Offset(1, -4) = "high NPK" Then
    Call update_recipients_details_with_scenario_characterised_by_greatest_NPK

ElseIf [Agent].Offset(1, -4) = "low NPK" Then
    Call update_recipients_details_with_scenario_characterised_by_laest_NPK

ElseIf [Agent].Offset(1, -4) = "random" Then
    Call randomly_select_a_scenario_and_update_recipients_details

ElseIf [Agent].Offset(1, -4) = "deterministic" Then
    Call update_recipients_details_according_to_deterministic_story_board

End If

End Sub

'SUB ROUTINE THAT UPDATES PROVIDERS PERSONAL INFORMATION
BEFORE RE-CALCULATING
'RECIPIENTS CURRENT RECEPTIVITY
Sub update_providers_personal_information()

'CONDITIONAL LOGIC CALCULATING EACH AGENT'S PERSONALITY

'RECALCULATING PROVIDER'S PERSONALITY ACCORDING TO THE BIG FIVE
TRAITS OF PERSONALITY:

'OPENESS TO EXPERIENCE:-----
If [Agent].Offset(2, 1) > 0.55 Then

    'If Rnd() > 0.5 Then
    [Agent].Offset(2, 2) = [Agent].Offset(2, 1)
    [Agent].Offset(2, 1) = (Int((100 - 55 + 1) * Rnd + 55) / 100)
    'End If

ElseIf [Agent].Offset(2, 1) > 0.45 Then

    'If Rnd() > 0.5 Then
    [Agent].Offset(2, 2) = [Agent].Offset(2, 1)
    [Agent].Offset(2, 1) = (Int((55 - 45 + 1) * Rnd + 45) / 100)
    'End If

ElseIf [Agent].Offset(2, 1) < 0.45 Then

    'If Rnd() > 0.5 Then
    [Agent].Offset(2, 2) = [Agent].Offset(2, 1)
    [Agent].Offset(2, 1) = (Int((45 - 0 + 1) * Rnd + 0) / 100)
    'End If

```

```

'End If

End If

'CONSCIENTIOUSNESS:-----

If [Agent].Offset(2, 3) > 0.55 Then

    'If Rnd() > 0.5 Then
    [Agent].Offset(2, 4) = [Agent].Offset(2, 3)
    [Agent].Offset(2, 3) = (Int((100 - 55 + 1) * Rnd + 55) / 100)
    'End If

ElseIf [Agent].Offset(2, 3) > 0.45 Then

    'If Rnd() > 0.5 Then
    [Agent].Offset(2, 4) = [Agent].Offset(2, 3)
    [Agent].Offset(2, 3) = (Int((55 - 45 + 1) * Rnd + 45) / 100)
    'End If

ElseIf [Agent].Offset(2, 3) < 0.45 Then

    'If Rnd() > 0.5 Then
    [Agent].Offset(2, 4) = [Agent].Offset(2, 3)
    [Agent].Offset(2, 3) = (Int((45 - 0 + 1) * Rnd + 0) / 100)
    'End If

End If

'EXTROVERSION:-----

If [Agent].Offset(2, 5) > 0.55 Then

    'If Rnd() > 0.5 Then
    [Agent].Offset(2, 6) = [Agent].Offset(2, 5)
    [Agent].Offset(2, 5) = (Int((100 - 55 + 1) * Rnd + 55) / 100)
    'End If

ElseIf [Agent].Offset(2, 5) > 0.45 Then

    'If Rnd() > 0.5 Then
    [Agent].Offset(2, 6) = [Agent].Offset(2, 5)
    [Agent].Offset(2, 5) = (Int((55 - 45 + 1) * Rnd + 45) / 100)
    'End If

```

ElseIf [Agent].Offset(2, 5) < 0.45 Then

 'If Rnd() > 0.5 Then
 [Agent].Offset(2, 6) = [Agent].Offset(2, 5)
 [Agent].Offset(2, 5) = (Int((45 - 0 + 1) * Rnd + 0) / 100)
 'End If

End If

'AGREEABLENESS:-----

If [Agent].Offset(2, 7) > 0.55 Then

 'If Rnd() > 0.5 Then
 [Agent].Offset(2, 8) = [Agent].Offset(2, 7)
 [Agent].Offset(2, 7) = (Int((100 - 55 + 1) * Rnd + 55) / 100)
 'End If

ElseIf [Agent].Offset(2, 7) > 0.45 Then

 'If Rnd() > 0.5 Then
 [Agent].Offset(2, 8) = [Agent].Offset(2, 7)
 [Agent].Offset(2, 7) = (Int((55 - 45 + 1) * Rnd + 45) / 100)
 'End If

ElseIf [Agent].Offset(2, 7) < 0.45 Then

 'If Rnd() > 0.5 Then
 [Agent].Offset(2, 8) = [Agent].Offset(2, 7)
 [Agent].Offset(2, 7) = (Int((45 - 0 + 1) * Rnd + 0) / 100)
 'End If

End If

'EMOTIONAL STABILITY:-----

If [Agent].Offset(2, 9) > 0.55 Then

 'If Rnd() > 0.5 Then
 [Agent].Offset(2, 10) = [Agent].Offset(2, 9)
 [Agent].Offset(2, 9) = (Int((100 - 55 + 1) * Rnd + 55) / 100)
 'End If

ElseIf [Agent].Offset(2, 9) > 0.45 Then

 'If Rnd() > 0.5 Then

 [Agent].Offset(2, 10) = [Agent].Offset(2, 9)
 [Agent].Offset(2, 9) = (Int((55 - 45 + 1) * Rnd + 45) / 100)
 'End If

ElseIf [Agent].Offset(2, 9) < 0.45 Then

 'If Rnd() > 0.5 Then
 [Agent].Offset(2, 10) = [Agent].Offset(2, 9)
 [Agent].Offset(2, 9) = (Int((45 - 0 + 1) * Rnd + 0) / 100)
 'End If

End If

'-----

'LOGIC TO CALCULATE PROVIDERS UPDATED PROPENSITY TO TRUST

'KEY:

* (2, 5) = PROVIDERS CURRENT EXTROVERSION
* (2, 7) = PROVIDERS CURRENT AGREEABLENESS
* (2, 9) = PROVIDERS CURRENT EMOTIONAL STABILITY
* (2, 11) = PROVIDERS CURRENT PROPENSITY TO TRUST
* (2, 12) = PROVIDERS CURRENT PROPENSITY TO TRUST

'EQUATION TO CALCULATE PROVIDERS PREVIOUS PROPENSITY TO TRUST

[Agent].Offset(2, 12) = [Agent].Offset(2, 11)

'EQUATION TO CALCULATE PROPORTIONAL DIFFERENCE BETWEEN
PROVIDERS PREVIOUS AND CURRENT PROPENSITY TO TRUST

[Agent].Offset(2, 12) = ((([Agent].Offset(2, 11) - ([Agent].Offset(2, 5) +
[Agent].Offset(2, 7) +
[Agent].Offset(2, 9)) / 3))) + 1)

'EQUATION TO CALCULATE PROVIDERS CURRENT PROPENSITY TO TRUST

[Agent].Offset(2, 11) = ([Agent].Offset(2, 5) + [Agent].Offset(2, 7) + [Agent].Offset(2,
9)) / 3

'-----

'LOGIC TO CALCULATE PROVIDERS "UPDATED" TRUSTWORTHINESS

'KEY:

* (2,3) = PROVIDERS CURRENT CONSCIENTIOUSNESS
* (2,7) = PROVIDERS CURRENT AGREEABLENESS
* (2,23) = PROVIDERS CURRENT TRUSTWORTHINESS
* (2,24) = PROVIDERS PREVIOUS TRUATWORTHINESS

'EQUATION TO CALCULATE PROVIDERS PREVIOUS TRUSTWORTHINESS
[Agent].Offset(2, 24) = [Agent].Offset(2, 23)

PROVIDERS PREVIOUS
'EQUATION TO CALCULATE PROPORTIONS DIFFERENCE BETWEEN
'AND CURRENT TRUSTWORTHINESS
'[Agent].Offset(2, 24) = ((([Agent].Offset(2, 23) - (([Agent].Offset(2, 3) + _
[Agent].Offset(2, 7)) / 2)) + 1)

'EQUATION TO CALCULATE PROVIDERS CURRENT TRUSTWORTHINESS
[Agent].Offset(2, 23) = ((([Agent].Offset(2, 3) + [Agent].Offset(2, 7)) / 2)

'LOGIC TO CALCULATE PROVIDERS UPDATED REFERENT POWER
'KEY:
'* (2,7) = PROVIDERS CURRENT AGREEABLENESS
'* (2,9) = PROVIDERS CURRENT EMOTIONAL STABILITY
'* (2,25) = PROVIDERS CURRENT REFERENT POWER
'* (2,26) = PROVIDERS PREVIOUS REFERENT POWER

'CONDITIONAL LOGIC THAT STATES IF A PROVIDER HAS A HIGH POTENTIAL
TO ESTABLISH
'REFERENT POWER THEN THE RATE AT WHICH REFERENT POWER WILL BE
ESTABLISHED IS
'AT ITS GREATEST
If (([Agent].Offset(2, 7) + [Agent].Offset(2, 9)) / 2) > 0.6 Then

'CONDITIONAL LOGIC THAT STATES IF TIME PERIOD IN WHICH REFERENT
POWER TAKES TO ESTABLISH
'NOT REACHED MATURITY FACTOR IN THE PERIOD IN WHICH AGENTS
HAVE ENGAGED IN DIALOGUE TO
'DETERMINE WHAT IMPACT REFERENT POWER WILL HAVE
If ([time_period] / 30) < 1 Then

'EQUATION TO CALCULATE PROVIDERS PREVIOUS REFERENT POWER
[Agent].Offset(2, 26) = [Agent].Offset(2, 25)

RECIPIENTS PREVIOUS AND CURRENT
'EQUATION TO CALCULATE PROVIDERS DIFFERENCE BETWEEN
'REFERENT POWER
'[Agent].Offset(2, 26) = (([Agent].Offset(2, 25) - ((([Agent].Offset(2, 7) + _
[Agent].Offset(2, 9)) / 2) * ([time_period] / 30))) + 1)

'EQUATION TO CALCULATE PROVIDERS CURRENT REFERENT POWER
[Agent].Offset(2, 25) = (([Agent].Offset(2, 7) + [Agent].Offset(2, 9)) / 2) *
([time_period] / 30)

'CONDITIONAL LOGIC IN WHICH TIME PERIOD REFERENT POWER TAKES
TO ESTABLISH HAS REACHED MATURITY
Else

'EQUATION TO CALCULATE PROVIDERS PREVIOUS REFERENT POWER
[Agent].Offset(2, 26) = [Agent].Offset(2, 25)

PROVIDERS PREVIOUS AND CURRENT
'EQUATION TO CALCULATE PROPORTIONAL DIFFERENCE BETWEEN
'REFERENT POWER
'[Agent].Offset(2, 26) = ((([Agent].Offset(2, 25) - (([Agent].Offset(2, 7) + _
[Agent].Offset(2, 9)) / 2)) + 1)

'EQUATION TO CALCULATE PROVIDERS CURRENT REFERENT POWER
[Agent].Offset(2, 25) = ((([Agent].Offset(2, 7) + [Agent].Offset(2, 9)) / 2)

'END CONDITIONAL LOGIC
End If

'CONDITIONAL LOGIC THAT STATES IF A PROVIDER HAS A HIGH POTENTIAL
TO ESTABLISH
'REFERENT POWER THEN THE RATE AT WHICH REFERENT POWER WILL BE
ESTABLISHED IS
'AT ITS MEDIUM LEVEL
ElseIf (([Agent].Offset(2, 7) + [Agent].Offset(2, 9)) / 2) > 0.3 Then

'CONDITIONAL LOGIC THAT STATES IF TIME PERIOD IN WHICH REFERENT
POWER TAKES TO ESTABLISH
'NOT REACHED MATURITY FACTOR IN THE PERIOD IN WHICH AGENTS
HAVE ENGAGED IN DIALOGUE TO
'DETERMINE WHAT IMPACT REFERENT POWER WILL HAVE
If ([time_period] / 365) < 1 Then

'EQUATION TO CALCULATE PROVIDERS PREVIOUS REFERENT POWER
[Agent].Offset(2, 26) = [Agent].Offset(2, 25)

'EQUATION TO CALCULATE PROVIDERS CURRENT REFERENT POWER
[Agent].Offset(2, 25) = (([Agent].Offset(2, 7) + [Agent].Offset(2, 9)) / 2) *
([time_period] / 365)

'CONDITIONAL LOGIC IN WHICH TIME PERIOD REFERENT POWER TAKES
TO ESTABLISH HAS REACHED MATURITY
Else

'EQUATION TO CALCULATE PROVIDERS PREVIOUS REFERENT POWER
[Agent].Offset(2, 26) = [Agent].Offset(2, 25)

```

'EQUATION TO CALCULATE PROVIDERS CURRENT REFERENT POWER
[Agent].Offset(2, 25) = (([Agent].Offset(2, 7) + [Agent].Offset(2, 9)) / 2)

'END OF CONDITIONAL LOGIC
End If

'CONDITIONAL LOGIC THAT STATES IF A PROVIDER HAS A HIGH POTENTIAL
TO ESTABLISH
'REFERENT POWER THEN THE RATE AT WHICH REFERENT POWER WILL BE
ESTABLISHED IS
'AT ITS LOW LEVEL
ElseIf (([Agent].Offset(2, 7) + [Agent].Offset(2, 9)) / 2) > 0 Then

'CONDITIONAL LOGIC THAT STATES IF TIME PERIOD IN WHICH REFERENT
POWER TAKES TO ESTABLISH
'NOT REACHED MATURITY FACTOR IN THE PERIOD IN WHICH AGENTS
HAVE ENGAGED IN DIALOGUE TO
'DETERMINE WHAT IMPACT REFERENT POWER WILL HAVE
If ([time_period] / 1095) < 1 Then

'EQUATION TO CALCULATE PROVIDERS PREVIOUS REFERENT POWER
[Agent].Offset(2, 26) = [Agent].Offset(2, 25)

'EQUATION TO CALCULATE PROVIDERS CURRENT REFERENT POWER
[Agent].Offset(2, 25) = (([Agent].Offset(2, 7) + [Agent].Offset(2, 9)) / 2) *
([time_period] / 1095)

'CONDITIONAL LOGIC IN WHICH TIME PERIOD REFERENT POWER TAKES
TO ESTABLISH HAS REACHED MATURITY
Else

'EQUATION TO CALCULATE PROVIDERS PREVIOUS REFERENT POWER
[Agent].Offset(2, 26) = [Agent].Offset(2, 25)

'EQUATION TO CALCULATE PROVIDERS CURRENT REFERENT POWER
[Agent].Offset(2, 25) = (([Agent].Offset(2, 7) + [Agent].Offset(2, 9)) / 2)

'END OF CONDITIONAL LOGIC
End If

'END OF CONDITIONAL LOGIC
End If

'-----

```

```

'LOGIC TO CALCULATE PROVIDERS "UPDATED" MOTIVATION TO PROCESS
SUBMITTED EVIDENCE
'SYSTEMATICALLY AND CAREFULLY
'KEY:
'* (2, 1) = PROVIDERS CURRENT OPENNESS TO EXPERIENCE
'* (2, 19) = PROVIDERS CURRENT RECORD OF UNCERTAINTY
'* (2, 21) = PROVIDERS CURRENT MOTIVATION
'* (2, 22) = PROVIDERS PREVIOUS MOTIVATION

'CONDITIONAL LOGIC THAT STATES, "IF" CURRENT UNCERTAINTY IS
HIGH AND PROVIDERS
'CURRENT OPENESS TO EXPERIENCE IS HIGH (OR THE OPPOSITE IS
TRUE), "THEN" PROVIDERS
'IS POSITIVELY MOTIVATED

'BUT first check to see if uncertainty is a negative value. If it is then multiply it
'minus one in the equation. If its a positive value use it as it is.
If [Agent].Offset(2, 35) < 0 Then

If ([Agent].Offset(2, 35) * -1) > 0.6 And [Agent].Offset(2, 1) _
> 0.55 Or ([Agent].Offset(2, 35) * -1) < 0.29 And [Agent].Offset(2, 1) _
< 0.45 Then

'EQUATION TO CALCULATE PROVIDERS PREVIOUS MOTIVATION
[Agent].Offset(2, 22) = [Agent].Offset(2, 21)

'EQUATION TO CALCULATE PROPORTIONAL DIFFERENCE
BETWEEN PROVIDERS PREVIOUS
'AND CURRENT MOTIVATION
[Agent].Offset(2, 21) = (Int((100 - 50 + 1) * Rnd + 50) / 100)

'EQUATION TO CALCULATE PROVIDERS CURRENT MOTIVATION
[Agent].Offset(2, 21) = (([Agent].Offset(2, 22) - (Int((100 - 0 + 1) * Rnd + 0)
/ 100)) + 1)

'CONDITIONAL LOGIC THAT STATES, "IF" CURRENT UNCERTAINTY
IS HIGH AND PROVIDERS
'CURRENT OPENESS TO EXPERIENCE IS HIGH (OR THE OPPOSITE IS
TRUE), "THEN" PROVIDERS
'IS NEGATIVELY MOTIVATED
ElseIf ([Agent].Offset(2, 35) * -1) < 0.3 And [Agent].Offset(2, 1) _
> 0.55 Or ([Agent].Offset(2, 35) * -1) > 0.6 And [Agent].Offset(2, 1) _
< 0.45 Then

'EQUATION TO CALCULATE PROVIDERS PREVIOUS MOTIVATION

```

```

[Agent].Offset(2, 22) = [Agent].Offset(2, 21)

'EQUATION TO CALCULATE PROPORTIONAL DIFFERENCE
BETWEEN PROVIDERS PREVIOUS
'AND CURRENT MOTIVATION
[Agent].Offset(2, 21) = (Int((50 - 0 + 1) * Rnd + 0) / 100)

'EQUATION TO CALCULATE PROVIDERS CURRENT MOTIVATION
[Agent].Offset(2, 21) = (([Agent].Offset(2, 22) - (Int((0 - (-100) + 1) * Rnd +
(-100)) / 100)) + 1)

'END OF CONDITIONAL LOGIC
End If

Else
If [Agent].Offset(2, 35) > 0.6 And [Agent].Offset(2, 1) _
> 0.55 Or [Agent].Offset(2, 35) < 0.29 And [Agent].Offset(2, 1) _
< 0.45 Then

'EQUATION TO CALCULATE PROVIDERS PREVIOUS MOTIVATION
[Agent].Offset(2, 22) = [Agent].Offset(2, 21)

'EQUATION TO CALCULATE PROPORTIONAL DIFFERENCE
BETWEEN PROVIDERS PREVIOUS
'AND CURRENT MOTIVATION
[Agent].Offset(2, 21) = (Int((100 - 50 + 1) * Rnd + 50) / 100)

'EQUATION TO CALCULATE PROVIDERS CURRENT MOTIVATION
[Agent].Offset(2, 21) = (([Agent].Offset(2, 22) - (Int((100 - 0 + 1) * Rnd + 0)
/ 100)) + 1)

'CONDITIONAL LOGIC THAT STATES, "IF" CURRENT UNCERTAINTY
IS HIGH AND PROVIDERS
'CURRENT OPENESS TO EXPERIENCE IS HIGH (OR THE OPPOSITE IS
TRUE), "THEN" PROVIDERS
'IS NEGATIVELY MOTIVATED
ElseIf [Agent].Offset(2, 35) < 0.3 And [Agent].Offset(2, 1) _
> 0.55 Or [Agent].Offset(2, 35) > 0.6 And [Agent].Offset(2, 1) _
< 0.45 Then

'EQUATION TO CALCULATE PROVIDERS PREVIOUS MOTIVATION
[Agent].Offset(2, 22) = [Agent].Offset(2, 21)

'EQUATION TO CALCULATE PROPORTIONAL DIFFERENCE
BETWEEN PROVIDERS PREVIOUS
'AND CURRENT MOTIVATION

```

```

[Agent].Offset(2, 21) = (Int((50 - 0 + 1) * Rnd + 0) / 100)

'EQUATION TO CALCULATE PROVIDERS CURRENT MOTIVATION
[Agent].Offset(2, 21) = (([Agent].Offset(2, 22) - (Int((0 - (-100) + 1) * Rnd +
(-100)) / 100)) + 1)

'END OF CONDITIONAL LOGIC
End If
End If
'-----

'LOGIC TO CALCULATE IF PROVIDER IS MOTIVATED TO SHARE
KNOWLEDGE WITH PROVIDER
'KEY:
'* (1,21) = RECIPIENTS CURRENT MOTIVATION
'* (2,21) = PROVIDERS CURRENT MOTIVATION
'* (2,22) = PROVIDERS PREVIOUS MOTIVATION

'CONDITIONAL LOGIC THAT STATES, "IF" BOTH RECIPIENT AND
PROVIDER ARE
'POSITIVELY MOTIVATED TO PROCESS THE EVIDENCE
SYSTEMATICALLY AND CAREFULLY
'(OR THE OPPOSITE IS TRUE), "THEN" PROVIDER IS NEGATIVELY
MOTIVATED TO SHARE KNOWLEDGE
If [Agent].Offset(2, 21) > 0.6 And [Agent].Offset(1, 21) > 0.6 Or _
[Agent].Offset(2, 21) < 0.3 And [Agent].Offset(1, 21) < 0.3 Then

'EQUATION TO CALCULATE PROVIDERS PREVIOUS MOTIVATION
[Agent].Offset(2, 20) = [Agent].Offset(2, 19)

'EQUATION TO CALCULATE PROVIDERS CURRENT MOTIVATION
[Agent].Offset(2, 19) = (Int((50 - 0 + 1) * Rnd + 0) / 100)

'CONDITIONAL LOGIC THAT STATES, "IF" PROVIDER IS POSITIVELY
MOTIVATED TO PROCESS THE
'EVIDENCE SYSTEMATICALLY AND CAREFULLY AND THE RECIPIENT IS
NEGATIVELY MOTIVATED
'(OR THE OPPOSITE IS TRUE), "THEN" PROVIDER IS POSITIVELY
MOTIVATED TO SHARE KNOWLEDGE
ElseIf [Agent].Offset(2, 21) > 0.6 And [Agent].Offset(1, 21) < 0.3 Or _
[Agent].Offset(2, 21) < 0.3 And [Agent].Offset(1, 21) > 0.6 Then

'EQUATION TO CALCULATE PROVIDERS PREVIOUS MOTIVATION
[Agent].Offset(2, 20) = [Agent].Offset(2, 19)

'EQUATION TO CALCULATE PROVIDERS CURRENT MOTIVATION

```

[Agent].Offset(2, 19) = (Int((100 - 50 + 1) * Rnd + 50) / 100)

'END OF CONDITIONAL LOGIC

End If

'LOGIC TO CALCULATE PROVIDERS "UPDATED" WILLINGNESS

'KEY:

* (2, 13) = PROVIDERS CURRENT POSITIVE PRIOR KNOWLEDGE (PPK)

* (2, 15) = PROVIDERS CURRENT NEGATIVE PRIOR KNOWLEDGE (NPK)

* (2, 17) = PROVIDERS CURRENT WILLINGNESS

* (2, 18) = PROVIDERS PREVIOUS WILLINGNESS

'EQUATION TO CALCULATE PROVIDERS PREVIOUS WILLINGNESS

[Agent].Offset(2, 18) = [Agent].Offset(2, 17)

'EQUATION TO CALCULATE PROVIDERS CURRENT WILLINGNESS

[Agent].Offset(2, 17) = [Agent].Offset(2, 13) + [Agent].Offset(2, 15)

'SUBROUTINE TO CALCULATE PROVIDERS RECEPTIVITY

'Sub calculate_providers_receptivity()

'CONDITIONAL LOGIC THAT CALCULATES PROVIDERS RECEPTIVITY BASED

ON THE FOLLOWING

'PARAMETERS

'KEY:

* (2, 27) = PROVIDERS CURRENT RECEPTIVITY

* (2, 11) = PROVIDERS CURRENT PROPENSITY TO TRUST

* (2, 17) = PROVIDERS CURRENT WILLINGNESS

* (2, 19) = PROVIDERS MOTIVATION TO SHARE

* (2, 21) = PROVIDERS CURRENT MOTIVATION TO PROCESS

* (1, 23) = RECIPIENTS CURRENT TRUSTWORTHINESS

* (1, 25) = RECIPIENTS CURRENT REFERENT POWER

'EQUATION THAT CALCULATES PROVIDERS PREVIOUS RECEPTIVITY

[Agent].Offset(2, 28) = [Agent].Offset(2, 27)

'EQUATION THAT CALCULATES PROVIDERS CURRENT RECEPTIVITY

'put a top limit of 1 and a bottom limit of 0 on an agents potential receptivity

[Agent].Offset(2, 27) = ([Agent].Offset(2, 11) + [Agent].Offset(1, 27) _

+ [Agent].Offset(2, 19) + [Agent].Offset(2, 21) + [Agent].Offset(1, 23) _

+ [Agent].Offset(1, 25)) / 6

End Sub

Sub update_recipients_personal_information()

'UPDATE RECIPIENT'S PERSONALITY:

'KEY:

* (1, 1) = RECIPIENTS CURRENT OPENNESS TO EXPERIENCE

* (1, 2) = RECIPIENTS PREVIOUS OPENNESS TO EXPERIENCE

* (1, 3) = RECIPIENTS CURRENT CONSCIENTIOUSNESS

* (1, 4) = RECIPIENTS PREVIOUS CONSCIENTIOUSNESS

* (1, 5) = RECIPIENTS CURRENT EXTROVERSION

* (1, 6) = RECIPIENTS PREVIOUS EXTROVERSION

* (1, 7) = RECIPIENTS CURRENT AGREEABLENESS

* (1, 8) = RECIPIENTS PREVIOUS AGREEABLENESS

* (1, 9) = RECIPIENTS CURRENT EMOTIONAL STABILITY

* (1, 10) = RECIPIENTS PREVIOUS EMOTIONAL STABILITY

'R'S "UPDATED" OPENESS TO EXPERIENCE:-----

If [Agent].Offset(1, 1) > 0.55 Then

'If Rnd() > 0.5 Then

[Agent].Offset(1, 2) = [Agent].Offset(1, 1)

[Agent].Offset(1, 1) = (Int((100 - 55 + 1) * Rnd + 55) / 100)

'End If

ElseIf [Agent].Offset(1, 1) > 0.45 Then

'If Rnd() > 0.5 Then

[Agent].Offset(1, 2) = [Agent].Offset(1, 1)

[Agent].Offset(1, 1) = (Int((55 - 45 + 1) * Rnd + 45) / 100)

'End If

ElseIf [Agent].Offset(1, 1) < 0.45 Then

'If Rnd() > 0.5 Then

[Agent].Offset(1, 2) = [Agent].Offset(1, 1)

[Agent].Offset(1, 1) = (Int((45 - 0 + 1) * Rnd + 0) / 100)

'End If

End If

'R'S "UPDATED" CONSCIENTIOUSNESS:-----

If [Agent].Offset(1, 3) > 0.55 Then

```
'If Rnd() > 0.5 Then
[Agent].Offset(1, 4) = [Agent].Offset(1, 3)
[Agent].Offset(1, 3) = (Int((100 - 55 + 1) * Rnd + 55) / 100)
'End If
```

ElseIf [Agent].Offset(1, 3) > 0.45 Then

```
'If Rnd() > 0.5 Then
[Agent].Offset(1, 4) = [Agent].Offset(1, 3)
[Agent].Offset(1, 3) = (Int((55 - 45 + 1) * Rnd + 45) / 100)
'End If
```

ElseIf [Agent].Offset(1, 3) < 0.45 Then

```
'If Rnd() > 0.5 Then
[Agent].Offset(1, 4) = [Agent].Offset(1, 3)
[Agent].Offset(1, 3) = (Int((45 - 0 + 1) * Rnd + 0) / 100)
'End If
```

End If

'R'S "UPDATED" EXTROVERSION:-----

If [Agent].Offset(1, 5) > 0.55 Then

```
'If Rnd() > 0.5 Then
[Agent].Offset(1, 6) = [Agent].Offset(1, 5)
[Agent].Offset(1, 5) = (Int((100 - 55 + 1) * Rnd + 55) / 100)
'End If
```

ElseIf [Agent].Offset(1, 5) > 0.45 Then

```
'If Rnd() > 0.5 Then
[Agent].Offset(1, 6) = [Agent].Offset(1, 5)
[Agent].Offset(1, 5) = (Int((55 - 45 + 1) * Rnd + 45) / 100)
'End If
```

ElseIf [Agent].Offset(1, 5) < 0.45 Then

```
'If Rnd() > 0.5 Then
[Agent].Offset(1, 6) = [Agent].Offset(1, 5)
[Agent].Offset(1, 5) = (Int((45 - 0 + 1) * Rnd + 0) / 100)
'End If
```

End If

'R'S "UPDATED" AGREEABLENESS:-----

If [Agent].Offset(1, 7) > 0.55 Then

```
'If Rnd() > 0.5 Then
[Agent].Offset(1, 8) = [Agent].Offset(1, 7)
[Agent].Offset(1, 7) = (Int((100 - 55 + 1) * Rnd + 55) / 100)
'End If
```

ElseIf [Agent].Offset(1, 7) > 0.45 Then

```
'If Rnd() > 0.5 Then
[Agent].Offset(1, 8) = [Agent].Offset(1, 7)
[Agent].Offset(1, 7) = (Int((55 - 45 + 1) * Rnd + 45) / 100)
'End If
```

ElseIf [Agent].Offset(1, 7) < 0.45 Then

```
'If Rnd() > 0.5 Then
[Agent].Offset(1, 8) = [Agent].Offset(1, 7)
[Agent].Offset(1, 7) = (Int((45 - 0 + 1) * Rnd + 0) / 100)
'End If
```

End If

'R'S "UPDATED" EMOTIONAL STABILITY:-----

If [Agent].Offset(1, 9) > 0.55 Then

```
'If Rnd() > 0.5 Then
[Agent].Offset(1, 10) = [Agent].Offset(1, 9)
[Agent].Offset(1, 9) = (Int((100 - 55 + 1) * Rnd + 55) / 100)
'End If
```

ElseIf [Agent].Offset(1, 9) > 0.45 Then

```
'If Rnd() > 0.5 Then
[Agent].Offset(1, 10) = [Agent].Offset(1, 9)
[Agent].Offset(1, 9) = (Int((55 - 45 + 1) * Rnd + 45) / 100)
'End If
```

ElseIf [Agent].Offset(1, 9) < 0.45 Then

```

'If Rnd() > 0.5 Then
[Agent].Offset(1, 10) = [Agent].Offset(1, 9)
[Agent].Offset(1, 9) = (Int((45 - 0 + 1) * Rnd + 0) / 100)
'End If

End If

'-----

'CONDITIONAL LOGIC THAT STATES RECIPIENTS PROPENSITY TO TRUST IS
DETERMINED
'BY THERE PERSONALITY
'KEY:
'* (1,12) = previous recipients propensity to trust
'* (1,11) = current recipients propensity to trust
'* (1,5) = current recipients extroversion
'* (1,7) = current recipients agreeableness
'* (1,9) = current recipients emotional stability

'EQUATION TO CALCULATE PREVIOUS RECIPIENTS PROPENSITY TO TRUST
[Agent].Offset(1, 12) = [Agent].Offset(1, 11)

'EQUATION TO CALCULATE CURRENT RECIPIENT PROPENSITY TO TRUST
[Agent].Offset(1, 11) = ([Agent].Offset(1, 5) + [Agent].Offset(1, 7) + [Agent].Offset(1, 9))
/ 3

'-----

'CONDITIONAL LOGIC TO CALCULATE RECIPIENTS UPDATED
TRUSTWORTHINESS
'KEY:
'* (1,3) = RECIPIENTS CURRENT CONSCIENTIOUSNESS
'* (1,7) = RECIPIENTS CURRENT AGREEABLENESS
'* (1,23) = RECIPIENTS CURRENT TRUSTWORTHINESS
'* (1,24) = RECIPIENTS PREVIOUS TRUSTWORTHINESS

'EQUATION TO CALCULATE RECIPIENTS PREVIOUS TRUSTWORTHINESS
[Agent].Offset(1, 24) = [Agent].Offset(1, 23)

'EQUATION TO CALCULATE RECIPIENTS CURRENT TRUSTWORTHINESS
[Agent].Offset(1, 23) = ([Agent].Offset(1, 3) + [Agent].Offset(1, 7)) / 2

'-----

'CONDITIONAL LOGIC TO CALCULATE RECIPIENTS UPDATED REFERENT
POWER

```

```

'KEY:
'* (1,7) = RECIPIENTS CURRENT AGREEABLENESS
'* (1,9) = RECIPIENTS CURRENT EMOTIONAL STABILITY
'* (1,25) = RECIPIENTS CURRENT REFERENT POWER
'* (1,26) = RECIPIENTS PREVIOUS REFERENT POWER

'CONDITIONAL LOGIC THAT STATES IF A RECIPIENT HAS A HIGH POTENTIAL
TO ESTABLISH
'REFERENT POWER THEN THE RATE AT WHICH REFERENT POWER WILL BE
ESTABLISHED IS
'AT ITS GREATEST
If (([Agent].Offset(1, 7) + [Agent].Offset(1, 9)) / 2) > 0.6 Then

'CONDITIONAL LOGIC THAT STATES IF TIME PERIOD IN WHICH REFERENT
POWER TAKES TO ESTABLISH
'NOT REACHED MATURITY FACTOR IN THE PERIOD IN WHICH AGENTS
HAVE ENGAGED IN DIALOUGE TO
'DETERMINE WHAT IMPACT REFERENT POWER WILL HAVE
If ([time_period] / 30) < 1 Then

'EQUATION TO CALCULATE RECIPIENTS PREVIOUS REFERENT POWER
[Agent].Offset(1, 26) = [Agent].Offset(1, 25)

'EQUATION TO CALCULATE RECIPIENTS CURRENT REFERENT POWER
[Agent].Offset(1, 25) = (([Agent].Offset(1, 7) + [Agent].Offset(1, 9)) / 2) *
([time_period] / 30)

'CONDITIONAL LOGIC IN WHICH TIME PERIOD REFERENT POWER TAKES
TO ESTABLISH HAS REACHED MATURITY
Else

'EQUATION TO CALCULATE RECIPIENTS PREVIOUS REFERENT POWER
[Agent].Offset(1, 26) = [Agent].Offset(1, 25)

'EQUATION TO CALCULATE RECIPIENTS CURRENT REFERENT POWER
[Agent].Offset(1, 25) = ([Agent].Offset(1, 7) + [Agent].Offset(1, 9)) / 2

'END CONDITIONAL LOGIC
End If

'CONDITIONAL LOGIC THAT STATES IF A RECIPIENT HAS A HIGH POTENTIAL
TO ESTABLISH
'REFERENT POWER THEN THE RATE AT WHICH REFERENT POWER WILL BE
ESTABLISHED IS
'AT ITS MEDIUM LEVEL
ElseIf (([Agent].Offset(1, 7) + [Agent].Offset(1, 9)) / 2) > 0.3 Then

```

'CONDITIONAL LOGIC THAT STATES IF TIME PERIOD IN WHICH REFERENT POWER TAKES TO ESTABLISH

'NOT REACHED MATURITY FACTOR IN THE PERIOD IN WHICH AGENTS HAVE ENGAGED IN DIALOGUE TO

'DETERMINE WHAT IMPACT REFERENT POWER WILL HAVE

If ([time_period] / 365) < 1 Then

'EQUATION TO CALCULATE RECIPIENTS PREVIOUS REFERENT POWER

[Agent].Offset(1, 26) = [Agent].Offset(1, 25)

'EQUATION TO CALCULATE RECIPIENTS CURRENT REFERENT POWER

[Agent].Offset(1, 25) = (([Agent].Offset(1, 7) + [Agent].Offset(1, 9)) / 2) * ([time_period] / 365)

'CONDITIONAL LOGIC IN WHICH TIME PERIOD REFERENT POWER TAKES TO ESTABLISH HAS REACHED MATURITY

Else

'EQUATION TO CALCULATE RECIPIENTS PREVIOUS REFERENT POWER

[Agent].Offset(1, 26) = [Agent].Offset(1, 25)

'EQUATION TO CALCULATE RECIPIENTS CURRENT REFERENT POWER

[Agent].Offset(1, 25) = ([Agent].Offset(1, 7) + [Agent].Offset(1, 9)) / 2

'END OF CONDITIONAL LOGIC

End If

'CONDITIONAL LOGIC THAT STATES IF A RECIPIENT HAS A HIGH POTENTIAL TO ESTABLISH

'REFERENT POWER THEN THE RATE AT WHICH REFERENT POWER WILL BE ESTABLISHED IS

'AT ITS LOW LEVEL

ElseIf (([Agent].Offset(1, 7) + [Agent].Offset(1, 9)) / 2) > 0 Then

'CONDITIONAL LOGIC THAT STATES IF TIME PERIOD IN WHICH REFERENT POWER TAKES TO ESTABLISH

'NOT REACHED MATURITY FACTOR IN THE PERIOD IN WHICH AGENTS HAVE ENGAGED IN DIALOGUE TO

'DETERMINE WHAT IMPACT REFERENT POWER WILL HAVE

If ([time_period] / 1095) < 1 Then

'EQUATION TO CALCULATE RECIPIENTS PREVIOUS REFERENT POWER

[Agent].Offset(1, 26) = [Agent].Offset(1, 25)

'EQUATION TO CALCULATE RECIPIENTS CURRENT REFERENT POWER

[Agent].Offset(1, 25) = (([Agent].Offset(1, 7) + [Agent].Offset(1, 9)) / 2) * ([time_period] / 1095)

'CONDITIONAL LOGIC IN WHICH TIME PERIOD REFERENT POWER TAKES TO ESTABLISH HAS REACHED MATURITY

Else

'EQUATION TO CALCULATE RECIPIENTS PREVIOUS REFERENT POWER

[Agent].Offset(1, 26) = [Agent].Offset(1, 25)

'EQUATION TO CALCULATE RECIPIENTS CURRENT REFERENT POWER

[Agent].Offset(1, 25) = ([Agent].Offset(1, 7) + [Agent].Offset(1, 9)) / 2

'END OF CONDITIONAL LOGIC

End If

'END OF CONDITIONAL LOGIC

End If

'-----

'-----

'CONDITIONAL LOGIC TO CALCULATE IF RECIPIENT WILL BE LIKELY TO PROCESS THE EVIDENCE

'SYSTEMATICALLY AND CAREFULLY

'KEY:

* (1,19) = RECIPIENTS CURRENT RECORD OF UNCERTAINTY

* (1,1) = RECIPIENTS CURRENT OPENNESS TO EXPERIENCE

* (1,21) = RECIPIENTS CURRENT MOTIVATION

* (1,22) = RECIPIENTS PREVIOUS MOTIVATION

'CONDITIONAL LOGIC THAT STATES, IF UNCERTAINTY, ASSOCIATED WITH EVIDENCE, IS

'HIGH AND RECIPIENT IS UNCERTAINTY ORIENTATED (RECIPIENT HAS A HIGH OPENNESS

'OPENNESS TO EXPERIENCE) OR THE OPPOSITE IS TRUE THEN RECIPIENT IS POSITIVELY

'MOTIVATED TO PROCESS EVIDENCE SYSTEMATICALLY AND CAREFULLY

'If recipients record of uncertainty is a negative value multiply it with minus one

'within the equation, else use it as it is.

If [Agent].Offset(1, 35) < 0 Then

```

    If ([Agent].Offset(1, 35) * -1) > 0.6 And [Agent].Offset(1, 1) > 0.55 Or _
    ([Agent].Offset(1, 35) * -1) < 0.29 And [Agent].Offset(1, 1) < 0.45 Then

        'EQUATION TO CALCULATE RECIPIENTS PREVIOUS MOTIVATION TO
        PROCESS THE EVIDENCE
        [Agent].Offset(1, 22) = [Agent].Offset(1, 21)

        'EQUATION TO CALCULATE RECIPIENTS CURRENT MOTIVATION TO
        PROCESS EVIDENCE
        [Agent].Offset(1, 21) = (Int((100 - 50 + 1) * Rnd + 50) / 100)

        'CONDITIONAL LOGIC THAT STATES, IF UNCERTAINTY, ASSOCIATED
        WITH EVIDENCE, IS
        'LOW AND RECIPIENT IS UNCERTAINTY ORIENTATED (RECIPIENT HAS A
        HIGH OPENESS
        'OPENNESS TO EXPERIENCE) OR THE OPPOSITE IS TRUE THEN THE
        RECIPIENT IS
        'NEGATIVELY MOTIVATED TO PROCESS EVIDENCE SYSTEMATICALLY
        AND CAREFULLY
        ElseIf ([Agent].Offset(1, 35) * -1) < 0.3 And [Agent].Offset(1, 1) _
        > 0.55 Or ([Agent].Offset(1, 35) * -1) > 0.6 And [Agent].Offset(1, 1) _
        < 0.45 Then

            'EQUATION TO CALCULATE RECIPIENTS PREVIOUS MOTIVATION TO
            PROCESS THE EVIDENCE
            [Agent].Offset(1, 22) = [Agent].Offset(1, 21)

            'EQUATION TO CALCULATE RECIPIENTS CURRENT MOTIVATION TO
            PROCESS EVIDENCE
            [Agent].Offset(1, 21) = (Int((50 - 0 + 1) * Rnd + 0) / 100)

            'END OF CONDITIONAL LOGIC
            End If

        Else

            If [Agent].Offset(1, 35) > 0.6 And [Agent].Offset(1, 1) > 0.55 Or _
            [Agent].Offset(1, 35) < 0.29 And [Agent].Offset(1, 1) < 0.45 Then

                'EQUATION TO CALCULATE RECIPIENTS PREVIOUS MOTIVATION TO
                PROCESS THE EVIDENCE
                [Agent].Offset(1, 22) = [Agent].Offset(1, 21)

                'EQUATION TO CALCULATE RECIPIENTS CURRENT MOTIVATION TO
                PROCESS EVIDENCE

```

```

        [Agent].Offset(1, 21) = (Int((100 - 50 + 1) * Rnd + 50) / 100)

        'CONDITIONAL LOGIC THAT STATES, IF UNCERTAINTY, ASSOCIATED
        WITH EVIDENCE, IS
        'LOW AND RECIPIENT IS UNCERTAINTY ORIENTATED (RECIPIENT HAS A
        HIGH OPENESS
        'OPENNESS TO EXPERIENCE) OR THE OPPOSITE IS TRUE THEN THE
        RECIPIENT IS
        'NEGATIVELY MOTIVATED TO PROCESS EVIDENCE SYSTEMATICALLY
        AND CAREFULLY
        ElseIf [Agent].Offset(1, 35) < 0.3 And [Agent].Offset(1, 1) _
        > 0.55 Or [Agent].Offset(1, 35) > 0.6 And [Agent].Offset(1, 1) _
        < 0.45 Then

            'EQUATION TO CALCULATE RECIPIENTS PREVIOUS MOTIVATION TO
            PROCESS THE EVIDENCE
            [Agent].Offset(1, 22) = [Agent].Offset(1, 21)

            'EQUATION TO CALCULATE RECIPIENTS CURRENT MOTIVATION TO
            PROCESS EVIDENCE
            [Agent].Offset(1, 21) = (Int((50 - 0 + 1) * Rnd + 0) / 100)

            'END OF CONDITIONAL LOGIC
            End If
        End If

'-----

        'CONDITIONAL LOGIC TO DETERMINE HOW MOTIVATED RECIPIENT IS
        LIKELY TO BE
        'TO SHARE KNOWLEDGE WITH THE PROVIDER OF EVIDENCE
        'KEY:
        '* (1,21) = RECIPIENTS CURRENT MOTIVATION
        '* (2,21) = PROVIDERS CURRENT MOTIVATION
        '* (1,22) = RECIPIENTS PREVIOUS MOTIVATION

        'CONDITIONAL LOGIC THAT STATES IF BOTH RECIPIENT AND PROVIDER
        ARE POSITIVELY
        'MOTIVATED (OR BOTH NEGATIVELY MOTIVATED) TO PROCESS EVIDENCE
        SYSTEMATICALLY
        'AND CAREFULLY THEN THE RECIPIENT IS GOING TO BE NEGATIVELY
        MOTIVATED TO
        'SHARE KNOWLEDGE WITH THE PROVIDER OF EVIDENCE
        If [Agent].Offset(1, 21) > 0.6 And [Agent].Offset(2, 21) > 0.6 Or _
        [Agent].Offset(1, 21) < 0.3 And [Agent].Offset(2, 21) < 0.3 Then

```

+ 1)
[Agent].Offset(1, 22) = ((([Agent].Offset(1, 21) - (Int((29 - 0 + 1) * Rnd + 0) / 100)))

'EQUATION TO CALCULATE RECIPIENTS PREVIOUS MOTIVATION TO
SHARE KNOWLEDGE
[Agent].Offset(1, 20) = [Agent].Offset(1, 19)

'EQUATION TO CALCULATE RECIPIENTS CURRENT MOTIVATION TO
SHARE KNOWLEDGE
'- assuming they are negatively motivated
[Agent].Offset(1, 19) = (Int((50 - 0 + 1) * Rnd + 0) / 100)

'CONDITIONAL LOGIC THAT STATES IF RECIPIENT IS POSITIVELY AND
PROVIDER IS NEGATIVELY
'MOTIVATED TO PROCESS EVIDENCE SYSTEMATICALLY AND CAREFULLY,
OR THE RECIPIENT IS
'NEGATIVELY AND PROVIDER IS POSITIVELY MOTIVATED TO PROCESS
EVIDENCE SYSTEMATICALLY
'AND CAREFULLY THEN THE RECIPIENT IS GOING TO BE POSITIVELY
MOTIVATED TO
'SHARE KNOWLEDGE WITH THE PROVIDER OF EVIDENCE
ElseIf [Agent].Offset(1, 21) > 0.6 And [Agent].Offset(2, 21) < 0.3 Or _
[Agent].Offset(1, 21) < 0.3 And [Agent].Offset(2, 21) > 0.6 Then

'EQUATION TO CALCULATE RECIPIENTS PREVIOUS MOTIVATION TO
SHARE KNOWLEDGE
[Agent].Offset(1, 20) = [Agent].Offset(1, 19)

'EQUATION TO CALCULATE RECIPIENTS CURRENT MOTIVATION TO
SHARE KNOWLEDGE
'-assuming they are positively motivated
[Agent].Offset(1, 19) = (Int((100 - 50 + 1) * Rnd + 50) / 100)
End If

'-----

'CONDITIONAL LOGIC TO CALCULATE RECIPIENTS WILLINGNESS
'KEY:
'* (1,13) = RECIPIENTS POSITIVE PRIOR KNOWLEDGE (PPK)
'* (1,15) = RECIPIENTS NEGATIVE PRIOR KNOWLEDGE (NPK)
'* (1,17) = RECIPIENTS CURRENT WILLINGNESS
'* (1,18) = RECIPIENTS PREVIOUS WILLINGNESS

'EQUATION THAT CALCULATES RECIPIENTS PREVIOUS WILLINGNESS
[Agent].Offset(1, 18) = [Agent].Offset(1, 17)

'EQUATION THAT CALCULATES RECIPIENTS
[Agent].Offset(1, 17) = [Agent].Offset(1, 13) + [Agent].Offset(1, 15)

'END OF CONDITIONAL LOGIC
'End If

'-----

'SUBROUTINE THAT CALCULATES RECIPIENTS RECEPTIVITY
'Sub calculate_recipients_receptivity()

'CONDITIONAL LOGIC THAT CALCULATES RECIPIENTS RECEPTIVITY BASED
ON THE FOLLOWING

'PARAMETERS

'Key:

* (1,27) = current recipient receptivity
* (1,28) = previous recipient receptivity
* (1,11) = current recipient propensity to trust
* (1,19) = current recipients motivation to share
* (1,21) = current recipient motivation to process
* (2,23) = current providers trustworthiness
* (2,25) = current providers referent power

'EQUATION THAT CALCULATES RECIPIENTS PREVIOUS RECEPTIVITY
[Agent].Offset(1, 28) = [Agent].Offset(1, 27)

'EQUATION THAT CALCULATES RECIPIENTS CURRENT RECEPTIVITY
'place a top limit of 1 and a bottom limit of 0 on the recipients potential receptivity

[Agent].Offset(1, 27) = [Agent].Offset(1, 11) * (1 + [Agent].Offset(1, 17)) * _
(1 + [Agent].Offset(1, 19)) * (1 + [Agent].Offset(1, 21)) * (1 + [Agent].Offset(2, 23)) _
* (1 + [Agent].Offset(2, 25))

[Agent].Offset(1, 27) = ([Agent].Offset(1, 11) + [Agent].Offset(1, 17) _
+ [Agent].Offset(1, 19) + [Agent].Offset(1, 21) + [Agent].Offset(2, 23) _
+ [Agent].Offset(2, 25)) / 6

[Agent].Offset(1, 28) = [Agent].Offset(1, 27)

'END OF SUB ROUTINE

End Sub

'SUB ROUTINE THAT RANDOMLY POPULATES RECIPIENTS STORY BOARD
WITH INFORMATION RELATING TO
'CHANGES IN UNCERTAINTY AND POSITIVE & NEGATIVE PRIOR
KNOWLEDGE

Sub randomly_populate_recipients__story_board()

'COMMAND TO CLEAR VALUES RELATING TO PREVIOUS DAYS EVENT
[r_story_board_table].ClearContents

For i = 1 To 10
[recipients_story_board].Offset(i, 0) = i
[recipients_story_board].Offset(i, 2) = (Int((100 - (-100) + 1) * Rnd + (-100))) / 100
[recipients_story_board].Offset(i, 3) = (Int((100 - 0 + 1) * Rnd + 0)) / 100
[recipients_story_board].Offset(i, 4) = (Int((0 - (-100) + 1) * Rnd + (-100))) / 100
Next i

End Sub

'SUB ROUTINE THAT RANDOMLY POPULATES PROVIDERS STORY BOARD
WITH INFORMATION RELATING TO
'CHANGES IN UNCERTAINTY AND POSITIVE & NEGATIVE PRIOR
KNOWLEDGE

Sub randomly_populate_providers_story_board()

'COMMAND TO CLEAR VALUES RELATING TO PREVIOUS DAYS EVENT
[p_story_board_table].ClearContents

For i = 1 To 10
[providers_story_board].Offset(i, 0) = i
[providers_story_board].Offset(i, 2) = (Int((100 - (-100) + 1) * Rnd + (-100))) / 100
[providers_story_board].Offset(i, 3) = (Int((100 - 0 + 1) * Rnd + 0)) / 100
[providers_story_board].Offset(i, 4) = (Int((0 - (-100) + 1) * Rnd + (-100))) / 100
Next i

End Sub

Sub randomly_select_a_scenario_and_update_recipients_details()

[providers_story_board].Offset(_
Int((([providers_story_board].Offset(11, 0)) - 1 + 1) * Rnd + 1), 0).Select

'equation that calculates the recipients previous belief "for", "agaistn" providers

'record of previous uncertainty
[Agent].Offset(1, 34) = [Agent].Offset(1, 33)
[Agent].Offset(1, 36) = [Agent].Offset(1, 35)
[Agent].Offset(1, 38) = [Agent].Offset(1, 37)

'assuming indipendence replace the old belief for with the new belief for
[Agent].Offset(1, 33) = ActiveCell.Offset(0, 2)

'assuming indipendence replace the old belief against with the new belief against
[Agent].Offset(1, 37) = ActiveCell.Offset(0, 4)

[Agent].Offset(1, 35) = 1 - ([Agent].Offset(1, 33) + [Agent].Offset(1, 37))

If ([Agent].Offset(1, 27) * ActiveCell.Offset(0, 5)) > _
[Agent].Offset(1, 13) Then
[Agent].Offset(1, 13) = [Agent].Offset(1, 27) * ActiveCell.Offset(0, 5)
Else: [Agent].Offset(1, 13) = [Agent].Offset(1, 13) * 0.99
End If

If ([Agent].Offset(1, 27) * ActiveCell.Offset(0, 6)) > _
[Agent].Offset(1, 15) Then
[Agent].Offset(1, 15) = [Agent].Offset(1, 27) * ActiveCell.Offset(0, 6)
Else: [Agent].Offset(1, 15) = [Agent].Offset(1, 15) * 0.99
End If

End Sub

Sub randomly_select_a_scenario_and_update_providers_details()

[providers_story_board].Offset(_
Int((([providers_story_board].Offset(11, 0)) - 1 + 1) * Rnd + 1), 0).Select

'equation that calculates the recipients previous belief "for", "agaistn" providers
'record of previous uncertainty
[Agent].Offset(2, 34) = [Agent].Offset(2, 33)
[Agent].Offset(2, 36) = [Agent].Offset(2, 35)
[Agent].Offset(2, 38) = [Agent].Offset(2, 37)

'assuming indipendence replace the old belief for with the new belief for
[Agent].Offset(2, 33) = ActiveCell.Offset(0, 2)

'assuming indipendence replace the old belief against with the new belief against
[Agent].Offset(2, 37) = ActiveCell.Offset(0, 4)

```

If ([Agent].Offset(2, 27) * ActiveCell.Offset(0, 5)) > _
[Agent].Offset(2, 13) Then
[Agent].Offset(2, 13) = [Agent].Offset(2, 27) * ActiveCell.Offset(0, 5)
Else: [Agent].Offset(2, 13) = [Agent].Offset(2, 13) * 0.99
End If

```

```

If ([Agent].Offset(2, 27) * ActiveCell.Offset(0, 6)) > _
[Agent].Offset(2, 15) Then
[Agent].Offset(2, 15) = [Agent].Offset(2, 27) * ActiveCell.Offset(0, 6)
Else: [Agent].Offset(2, 15) = [Agent].Offset(2, 15) * 0.99
End If

```

End Sub

Sub update_recipients_details_with_scenario_characterised_by_least_uncertainty()

'SELECT THE DATA (WITHIN THE RECIPIENT'S STORY BOARD) THAT
'CHARACTERISES THE LEAST UNCERTAINTY

Sheets("Agent environment").Select

For i = 1 To 10

```

If [recipients_story_board].Offset(i, 2) = _
[recipients_story_board].Offset(12, 2) And _
[recipients_story_board].Offset(i, 0) > 0.01 Then
[recipients_story_board].Offset(i, 2).Select
End If

```

Next i

'equation that calculates the recipients previous belief "for", "againgt" providers
'recorld of previous uncertainty

```

[Agent].Offset(1, 34) = [Agent].Offset(1, 33)
[Agent].Offset(1, 36) = [Agent].Offset(1, 35)
[Agent].Offset(1, 38) = [Agent].Offset(1, 37)

```

'assuming indipendence replace the old belief for with the new belief for
[Agent].Offset(1, 33) = ActiveCell.Offset(0, -1)

'assuming indipendence replace the old belief against with the new belief against
[Agent].Offset(1, 37) = ActiveCell.Offset(0, 1)

'UPDATE THE LEVEL OF POSITIVE PRIOR KNOWLEDGE (PPK) THAT
CHARACTERISES

'THE EVIDENCE PRESENTED TO THE PROVIDER

```

If ([Agent].Offset(1, 27) * ActiveCell.Offset(0, -2)) > _
[Agent].Offset(1, 13) Then
[Agent].Offset(1, 13) = [Agent].Offset(1, 27) * ActiveCell.Offset(0, -2)
Else: [Agent].Offset(1, 13) = [Agent].Offset(1, 13) * 0.99
End If

```

```

If ([Agent].Offset(1, 27) * ActiveCell.Offset(0, -3)) > _
[Agent].Offset(1, 15) Then
[Agent].Offset(1, 15) = [Agent].Offset(1, 27) * ActiveCell.Offset(0, -3)
Else: [Agent].Offset(1, 15) = [Agent].Offset(1, 15) * 0.99
End If

```

End Sub

Sub update_providers_details_with_scenario_characterised_by_least_uncertainty()

'SELECT THE DATA (WITHIN THE PROVIDER'S STORY BOARD) THAT
'CHARACTERISES THE LEAST UNCERTAINTY

Sheets("Agent environment").Select

```

If [providers_story_board].Offset(10, 2) = _
[providers_story_board].Offset(12, 2) And _
[providers_story_board].Offset(10, 0) > 0.01 Then
[providers_story_board].Offset(10, 2).Select

```

```

ElseIf [providers_story_board].Offset(9, 2) = _
[providers_story_board].Offset(12, 2) And _
[providers_story_board].Offset(9, 0) > 0.01 Then
[providers_story_board].Offset(9, 2).Select

```

```

ElseIf [providers_story_board].Offset(8, 2) = _
[providers_story_board].Offset(12, 2) And _
[providers_story_board].Offset(8, 0) > 0.01 Then
[providers_story_board].Offset(8, 2).Select

```

```

ElseIf [providers_story_board].Offset(7, 2) = _
[providers_story_board].Offset(12, 2) And _
[providers_story_board].Offset(7, 0) > 0.01 Then
[providers_story_board].Offset(7, 2).Select

```

```

ElseIf [providers_story_board].Offset(6, 2) = _
[providers_story_board].Offset(12, 2) And _
[providers_story_board].Offset(6, 0) > 0.01 Then
[providers_story_board].Offset(6, 2).Select

```

```

ElseIf [providers_story_board].Offset(5, 2) = _
[providers_story_board].Offset(12, 2) And _
[providers_story_board].Offset(5, 0) > 0.01 Then
[providers_story_board].Offset(5, 2).Select

```

```

ElseIf [providers_story_board].Offset(4, 2) = _
[providers_story_board].Offset(12, 2) And _
[providers_story_board].Offset(4, 0) > 0.01 Then
[providers_story_board].Offset(4, 2).Select

```

```

ElseIf [providers_story_board].Offset(3, 2) = _
[providers_story_board].Offset(12, 2) And _
[providers_story_board].Offset(3, 0) > 0.01 Then
[providers_story_board].Offset(3, 2).Select

```

```

ElseIf [providers_story_board].Offset(2, 2) = _
[providers_story_board].Offset(12, 2) And _
[providers_story_board].Offset(2, 0) > 0.01 Then
[providers_story_board].Offset(2, 2).Select

```

```

ElseIf [providers_story_board].Offset(1, 2) = _
[providers_story_board].Offset(12, 2) And _
[providers_story_board].Offset(1, 0) > 0.01 Then
[providers_story_board].Offset(1, 2).Select
End If

```

```

'equation that calculates the recipients previous belief "for", "againgt" providers
'record of previous uncertainty
[Agent].Offset(2, 34) = [Agent].Offset(2, 33)
[Agent].Offset(2, 36) = [Agent].Offset(2, 35)
[Agent].Offset(2, 38) = [Agent].Offset(2, 37)

```

```

'assuming indipendence replace the old belief for with the new belief for
[Agent].Offset(2, 33) = ActiveCell.Offset(0, -1)

```

```

'assuming indipendence replace the old belief against with the new belief against
[Agent].Offset(2, 37) = ActiveCell.Offset(0, 1)

```

'UPDATE THE LEVEL OF POSITIVE PRIOR KNOWLEDGE (PPK) THAT CHARACTERISES

'THE EVIDENCE PRESENTED TO THE PROVIDER

```

If ([Agent].Offset(2, 27) * ActiveCell.Offset(0, -2)) > _
[Agent].Offset(2, 13) Then
[Agent].Offset(2, 13) = [Agent].Offset(2, 27) * ActiveCell.Offset(0, -2)
Else: [Agent].Offset(2, 13) = [Agent].Offset(2, 13) * 0.99
End If

```

```

If ([Agent].Offset(2, 27) * ActiveCell.Offset(0, -3)) > _
[Agent].Offset(2, 15) Then
[Agent].Offset(2, 15) = [Agent].Offset(2, 27) * ActiveCell.Offset(0, -3)
Else: [Agent].Offset(2, 15) = [Agent].Offset(2, 15) * 0.99
End If

```

End Sub

Sub update_recipients_details_with_scenario_characterised_by_greatest_uncertainty()

'SELECT THE DATA (WITHIN THE RECIPIENT'S STORY BOARD) THAT
'CHARACTERISES THE GREATEST UNCERTAINTY

Sheets("Agent environment").Select

```

If [recipients_story_board].Offset(10, 2) = _
[recipients_story_board].Offset(11, 2) And _
[recipients_story_board].Offset(10, 0) > 0.01 Then
[recipients_story_board].Offset(10, 2).Select

```

```

ElseIf [recipients_story_board].Offset(9, 2) = _
[recipients_story_board].Offset(11, 2) And _
[recipients_story_board].Offset(9, 0) > 0.01 Then
[recipients_story_board].Offset(9, 2).Select

```

```

ElseIf [recipients_story_board].Offset(8, 2) = _
[recipients_story_board].Offset(11, 2) And _
[recipients_story_board].Offset(8, 0) > 0.01 Then
[recipients_story_board].Offset(8, 2).Select

```

```

ElseIf [recipients_story_board].Offset(7, 2) = _
[recipients_story_board].Offset(11, 2) And _
[recipients_story_board].Offset(7, 0) > 0.01 Then
[recipients_story_board].Offset(7, 2).Select

```

```

ElseIf [recipients_story_board].Offset(6, 2) = _
[recipients_story_board].Offset(11, 2) And _
[recipients_story_board].Offset(6, 0) > 0.01 Then
[recipients_story_board].Offset(6, 2).Select

```

```

ElseIf [recipients_story_board].Offset(5, 2) = _
[recipients_story_board].Offset(11, 2) And _
[recipients_story_board].Offset(5, 0) > 0.01 Then
[recipients_story_board].Offset(5, 2).Select

```

```

ElseIf [recipients_story_board].Offset(4, 2) = _
[recipients_story_board].Offset(11, 2) And _
[recipients_story_board].Offset(4, 0) > 0.01 Then
[recipients_story_board].Offset(4, 2).Select

```

```

ElseIf [recipients_story_board].Offset(3, 2) = _
[recipients_story_board].Offset(11, 2) And _
[recipients_story_board].Offset(3, 0) > 0.01 Then
[recipients_story_board].Offset(3, 2).Select

```

```

ElseIf [recipients_story_board].Offset(2, 2) = _
[recipients_story_board].Offset(11, 2) And _
[recipients_story_board].Offset(2, 0) > 0.01 Then
[recipients_story_board].Offset(2, 2).Select

```

```

ElseIf [recipients_story_board].Offset(1, 2) = _
[recipients_story_board].Offset(11, 2) And _
[recipients_story_board].Offset(1, 0) > 0.01 Then
[recipients_story_board].Offset(1, 2).Select
End If

```

'equation that calculates the recipients previous belief "for", "againgt" providers
'record of previous uncertainty
[Agent].Offset(1, 34) = [Agent].Offset(1, 33)
[Agent].Offset(1, 36) = [Agent].Offset(1, 35)
[Agent].Offset(1, 38) = [Agent].Offset(1, 37)

'assuming indipendence replace the old belief for with the new belief for
[Agent].Offset(1, 33) = ActiveCell.Offset(0, -1)

'assuming indipendence replace the old belief against with the new belief against
[Agent].Offset(1, 37) = ActiveCell.Offset(0, 1)

'UPDATE THE LEVEL OF POSITIVE PRIOR KNOWLEDGE (PPK) THAT
CHARACTERISES

'THE EVIDENCE PRESENTED TO THE PROVIDER

```

If ([Agent].Offset(1, 27) * ActiveCell.Offset(0, -2)) > _
[Agent].Offset(1, 13) Then
[Agent].Offset(1, 13) = [Agent].Offset(1, 27) * ActiveCell.Offset(0, -2)
Else: [Agent].Offset(1, 13) = [Agent].Offset(1, 13) * 0.99
End If

```

```

If ([Agent].Offset(1, 27) * ActiveCell.Offset(0, -3)) > _
[Agent].Offset(1, 15) Then
[Agent].Offset(1, 15) = [Agent].Offset(1, 27) * ActiveCell.Offset(0, -3)
Else: [Agent].Offset(1, 15) = [Agent].Offset(1, 15) * 0.99
End If

```

End Sub

Sub update_providers_details_with_scenario_characterised_by_greatest_uncertainty()

'SELECT THE DATA (WITHIN THE PROVIDER'S STORY BOARD) THAT
'CHARACTERISES THE GREATEST UNCERTAINTY

Sheets("Agent environment").Select

```

If [providers_story_board].Offset(10, 2) = _
[providers_story_board].Offset(11, 2) And _
[providers_story_board].Offset(10, 0) > 0.01 Then
[providers_story_board].Offset(10, 2).Select

```

```

ElseIf [providers_story_board].Offset(9, 2) = _
[providers_story_board].Offset(11, 2) And _
[providers_story_board].Offset(9, 0) > 0.01 Then
[providers_story_board].Offset(9, 2).Select

```

```

ElseIf [providers_story_board].Offset(8, 2) = _
[providers_story_board].Offset(11, 2) And _
[providers_story_board].Offset(8, 0) > 0.01 Then
[providers_story_board].Offset(8, 2).Select

```

```

ElseIf [providers_story_board].Offset(7, 2) = _
[providers_story_board].Offset(11, 2) And _
[providers_story_board].Offset(7, 0) > 0.01 Then
[providers_story_board].Offset(7, 2).Select

```

```

ElseIf [providers_story_board].Offset(6, 2) = _
[providers_story_board].Offset(11, 2) And _
[providers_story_board].Offset(6, 0) > 0.01 Then
[providers_story_board].Offset(6, 2).Select

```

```

ElseIf [providers_story_board].Offset(5, 2) = _
[providers_story_board].Offset(11, 2) And _
[providers_story_board].Offset(5, 0) > 0.01 Then
[providers_story_board].Offset(5, 2).Select

```

```

ElseIf [providers_story_board].Offset(4, 2) = _
[providers_story_board].Offset(11, 2) And _
[providers_story_board].Offset(4, 0) > 0.01 Then
[providers_story_board].Offset(4, 2).Select

```

```

ElseIf [providers_story_board].Offset(3, 2) = _
[providers_story_board].Offset(11, 2) And _
[providers_story_board].Offset(3, 0) > 0.01 Then
[providers_story_board].Offset(3, 2).Select

```

```

ElseIf [providers_story_board].Offset(2, 2) = _
[providers_story_board].Offset(11, 2) And _
[providers_story_board].Offset(2, 0) > 0.01 Then
[providers_story_board].Offset(2, 2).Select

```

```

ElseIf [providers_story_board].Offset(1, 2) = _
[providers_story_board].Offset(11, 2) And _
[providers_story_board].Offset(1, 0) > 0.01 Then
[providers_story_board].Offset(1, 2).Select
End If

```

'equation that calculates the recipients previous belief "for", "againgt" providers
'record of previous uncertainty
[Agent].Offset(2, 34) = [Agent].Offset(2, 33)
[Agent].Offset(2, 36) = [Agent].Offset(2, 35)
[Agent].Offset(2, 38) = [Agent].Offset(2, 37)

'assuming indipendence replace the old belief for with the new belief for
[Agent].Offset(2, 33) = ActiveCell.Offset(0, -1)

'assuming indipendence replace the old belief against with the new belief against
[Agent].Offset(2, 37) = ActiveCell.Offset(0, 1)

'UPDATE THE LEVEL OF POSITIVE PRIOR KNOWLEDGE (PPK) THAT
CHARACTERISES

'THE EVIDENCE PRESENTED TO THE PROVIDER

```

If ([Agent].Offset(2, 27) * ActiveCell.Offset(0, -2)) > _
[Agent].Offset(2, 13) Then
[Agent].Offset(2, 13) = [Agent].Offset(2, 27) * ActiveCell.Offset(0, -2)
Else: [Agent].Offset(2, 13) = [Agent].Offset(2, 13) * 0.99
End If

```

```

If ([Agent].Offset(2, 27) * ActiveCell.Offset(0, -3)) > _
[Agent].Offset(2, 15) Then
[Agent].Offset(2, 15) = [Agent].Offset(2, 27) * ActiveCell.Offset(0, -3)
Else: [Agent].Offset(2, 15) = [Agent].Offset(2, 15) * 0.99
End If

```

End Sub

Sub update_recipients_details_with_scenario_characterised_by_least_PPK()

'SELECT THE DATA (WITHIN THE RECIPIENT'S STORY BOARD) THAT
'CHARACTERISES THE LEAST POSITIVE PRIOR KNOWLEDGE (PPK)

Sheets("Agent environment").Select

```

If [recipients_story_board].Offset(10, 3) = _
[recipients_story_board].Offset(12, 3) And _
[recipients_story_board].Offset(10, 0) > 0.01 Then
[recipients_story_board].Offset(10, 3).Select

```

```

ElseIf [recipients_story_board].Offset(9, 3) = _
[recipients_story_board].Offset(12, 3) And _
[recipients_story_board].Offset(9, 0) > 0.01 Then
[recipients_story_board].Offset(9, 3).Select

```

```

ElseIf [recipients_story_board].Offset(8, 3) = _
[recipients_story_board].Offset(12, 3) And _
[recipients_story_board].Offset(8, 0) > 0.01 Then
[recipients_story_board].Offset(8, 3).Select

```

```

ElseIf [recipients_story_board].Offset(7, 3) = _
[recipients_story_board].Offset(12, 3) And _
[recipients_story_board].Offset(7, 0) > 0.01 Then

```

[recipients_story_board].Offset(7, 3).Select

ElseIf [recipients_story_board].Offset(6, 3) = _
[recipients_story_board].Offset(12, 3) And _
[recipients_story_board].Offset(6, 0) > 0.01 Then
[recipients_story_board].Offset(6, 3).Select

ElseIf [recipients_story_board].Offset(5, 3) = _
[recipients_story_board].Offset(12, 3) And _
[recipients_story_board].Offset(5, 0) > 0.01 Then
[recipients_story_board].Offset(5, 3).Select

ElseIf [recipients_story_board].Offset(4, 3) = _
[recipients_story_board].Offset(12, 3) And _
[recipients_story_board].Offset(4, 0) > 0.01 Then
[recipients_story_board].Offset(4, 3).Select

ElseIf [recipients_story_board].Offset(3, 3) = _
[recipients_story_board].Offset(12, 3) And _
[recipients_story_board].Offset(3, 0) > 0.01 Then
[recipients_story_board].Offset(3, 3).Select

ElseIf [recipients_story_board].Offset(2, 3) = _
[recipients_story_board].Offset(12, 3) And _
[recipients_story_board].Offset(2, 0) > 0.01 Then
[recipients_story_board].Offset(2, 3).Select

ElseIf [recipients_story_board].Offset(1, 3) = _
[recipients_story_board].Offset(12, 3) And _
[recipients_story_board].Offset(1, 0) > 0.01 Then
[recipients_story_board].Offset(1, 3).Select
End If

'equation that calculates the recipients previous belief "for", "againgt" providers
'record of previous uncertainty
[Agent].Offset(1, 34) = [Agent].Offset(1, 33)
[Agent].Offset(1, 36) = [Agent].Offset(1, 35)
[Agent].Offset(1, 38) = [Agent].Offset(1, 37)

'assuming independence replace the old belief for with the new belief for
[Agent].Offset(1, 33) = ActiveCell.Offset(0, -3)

'assuming independence replace the old belief against with the new belief against
[Agent].Offset(1, 37) = ActiveCell.Offset(0, -1)

'UPDATE THE LEVEL OF POSITIVE PRIOR KNOWLEDGE (PPK) THAT
CHARACTERISES

'THE EVIDENCE PRESENTED TO THE PROVIDER

If ([Agent].Offset(1, 27) * ActiveCell.Offset(0, 0)) > _
[Agent].Offset(1, 13) Then
[Agent].Offset(1, 13) = [Agent].Offset(1, 27) * ActiveCell.Offset(0, 0)
Else: [Agent].Offset(1, 13) = [Agent].Offset(1, 13) * 0.99
End If

If ([Agent].Offset(1, 27) * ActiveCell.Offset(0, 1)) > _
[Agent].Offset(1, 15) Then
[Agent].Offset(1, 15) = [Agent].Offset(1, 27) * ActiveCell.Offset(0, 1)
Else: [Agent].Offset(1, 15) = [Agent].Offset(1, 15) * 0.99
End If

End Sub

Sub update_providers_details_with_scenario_characterised_by_least_PPK()

'SELECT THE DATA (WITHIN THE PROVIDER'S STORY BOARD) THAT
'CHARACTERISES THE LEAST POSITIVE PRIOR KNOWLEDGE (PPK)

Sheets("Agent environment").Select

If [providers_story_board].Offset(10, 3) = _
[providers_story_board].Offset(12, 3) And _
[providers_story_board].Offset(10, 0) > 0.01 Then
[providers_story_board].Offset(10, 3).Select

ElseIf [providers_story_board].Offset(9, 3) = _
[providers_story_board].Offset(12, 3) And _
[providers_story_board].Offset(9, 0) > 0.01 Then
[providers_story_board].Offset(9, 3).Select

ElseIf [providers_story_board].Offset(8, 3) = _
[providers_story_board].Offset(12, 3) And _
[providers_story_board].Offset(8, 0) > 0.01 Then
[providers_story_board].Offset(8, 3).Select

ElseIf [providers_story_board].Offset(7, 3) = _
[providers_story_board].Offset(12, 3) And _
[providers_story_board].Offset(7, 0) > 0.01 Then
[providers_story_board].Offset(7, 3).Select

```

ElseIf [providers_story_board].Offset(6, 3) = _
[providers_story_board].Offset(12, 3) And _
[providers_story_board].Offset(6, 0) > 0.01 Then
[providers_story_board].Offset(6, 3).Select

```

```

ElseIf [providers_story_board].Offset(5, 3) = _
[providers_story_board].Offset(12, 3) And _
[providers_story_board].Offset(5, 0) > 0.01 Then
[providers_story_board].Offset(5, 3).Select

```

```

ElseIf [providers_story_board].Offset(4, 3) = _
[providers_story_board].Offset(12, 3) And _
[providers_story_board].Offset(4, 0) > 0.01 Then
[providers_story_board].Offset(4, 3).Select

```

```

ElseIf [providers_story_board].Offset(3, 3) = _
[providers_story_board].Offset(12, 3) And _
[providers_story_board].Offset(3, 0) > 0.01 Then
[providers_story_board].Offset(3, 3).Select

```

```

ElseIf [providers_story_board].Offset(2, 3) = _
[providers_story_board].Offset(12, 3) And _
[providers_story_board].Offset(2, 0) > 0.01 Then
[providers_story_board].Offset(2, 3).Select

```

```

ElseIf [providers_story_board].Offset(1, 3) = _
[providers_story_board].Offset(12, 3) And _
[providers_story_board].Offset(1, 0) > 0.01 Then
[providers_story_board].Offset(1, 3).Select

```

End If

```

'equation that calculates the recipients previous belief "for", "agaisnt" providers
'record of previous uncertainty
[Agent].Offset(2, 34) = [Agent].Offset(2, 33)
[Agent].Offset(2, 36) = [Agent].Offset(2, 35)
[Agent].Offset(2, 38) = [Agent].Offset(2, 37)

```

```

'assuming indipendence replace the old belief for with the new belief for
[Agent].Offset(2, 33) = ActiveCell.Offset(0, -3)

```

```

'assuming indipendence replace the old belief against with the new belief against
[Agent].Offset(2, 37) = ActiveCell.Offset(0, -1)

```

'UPDATE THE LEVEL OF POSITIVE PRIOR KNOWLEDGE (PPK) THAT CHARACTERISES

'THE EVIDENCE PRESENTED TO THE PROVIDER

```

If ([Agent].Offset(2, 27) * ActiveCell.Offset(0, 0)) > _
[Agent].Offset(2, 13) Then
[Agent].Offset(2, 13) = [Agent].Offset(2, 27) * ActiveCell.Offset(0, 0)
Else: [Agent].Offset(2, 13) = [Agent].Offset(2, 13) * 0.99
End If

```

```

If ([Agent].Offset(2, 27) * ActiveCell.Offset(0, 1)) > _
[Agent].Offset(2, 15) Then
[Agent].Offset(2, 15) = [Agent].Offset(2, 27) * ActiveCell.Offset(0, 1)
Else: [Agent].Offset(2, 15) = [Agent].Offset(2, 15) * 0.99
End If

```

End Sub

'SUB ROUTINE FOR SELECTING THE DATA (WITHIN THE RECIPIENT'S STORY BOARD) THAT

'CHARACTERISES THE GREATEST POSITIVE PRIOR KNOWLEDGE (PPK)
Sub update_recipients_details_with_scenario_characterised_by_greatest_PPK()

Sheets("Agent environment").Select

'SELECT THE DATA (WITHIN THE PROVIDER'S STORY BOARD) THAT
'CHARACTERISES THE GREATEST POSITIVE PRIOR KNOWLEDGE (PPK)

'CONDITIONAL LOGIC THAT STATES, "IF" THE CELL SELECTED IS EQUAL
TO THE

'MAXIMUM VALUE THEN SELECT THAT CELL

For i = 1 To 10

```

If [recipients_story_board].Offset(i, 5) = _
[recipients_story_board].Offset(11, 5) And _
[recipients_story_board].Offset(i, 0) > 0.01 Then
[recipients_story_board].Offset(i, 5).Select
End If

```

Next i

```

'equation that calculates the recipients previous belief "for", "agaisnt" providers
'record of previous uncertainty
[Agent].Offset(1, 34) = [Agent].Offset(1, 33)

```

```
[Agent].Offset(1, 36) = [Agent].Offset(1, 35)
[Agent].Offset(1, 38) = [Agent].Offset(1, 37)
```

```
'assuming independence replace the old belief for with the new belief for
[Agent].Offset(1, 33) = ActiveCell.Offset(0, -3)
```

```
'assuming independence replace the old belief against with the new belief against
[Agent].Offset(1, 37) = ActiveCell.Offset(0, -1)
```

CHARACTERISES

```
'UPDATE THE LEVEL OF POSITIVE PRIOR KNOWLEDGE (PPK) THAT
THE EVIDENCE PRESENTED TO THE Recipient
```

```
If ([Agent].Offset(1, 27) * ActiveCell.Offset(0, 0)) > _
[Agent].Offset(1, 13) Then
[Agent].Offset(1, 13) = [Agent].Offset(1, 27) * ActiveCell.Offset(0, 0)
Else: [Agent].Offset(1, 13) = [Agent].Offset(1, 13) * 0.99
End If
```

```
If ([Agent].Offset(1, 27) * ActiveCell.Offset(0, 1)) > _
[Agent].Offset(1, 15) Then
[Agent].Offset(1, 15) = [Agent].Offset(1, 27) * ActiveCell.Offset(0, 1)
Else: [Agent].Offset(1, 15) = [Agent].Offset(1, 15) * 0.99
End If
```

End Sub

```
Sub update_providers_details_with_scenario_characterised_by_greatest_PPK()
```

```
Sheets("Agent environment").Select
```

```
'SELECT THE DATA (WITHIN THE PROVIDER'S STORY BOARD) THAT
CHARACTERISES THE GREATEST POSITIVE PRIOR KNOWLEDGE (PPK)
```

TO THE

```
'CONDITIONAL LOGIC THAT STATES, "IF" THE CELL SELECTED IS EQUAL
'MAXIMUM VALUE THEN SELECT THAT CELL
If [providers_story_board].Offset(10, 5) = _
[providers_story_board].Offset(11, 5) And _
[providers_story_board].Offset(10, 0) > 0.01 Then
[providers_story_board].Offset(10, 5).Select
```

```
ElseIf [providers_story_board].Offset(9, 5) = _
```

```
[providers_story_board].Offset(11, 5) And _
[providers_story_board].Offset(9, 0) > 0.01 Then
[providers_story_board].Offset(9, 5).Select
```

```
ElseIf [providers_story_board].Offset(8, 5) = _
[providers_story_board].Offset(11, 5) And _
[providers_story_board].Offset(8, 0) > 0.01 Then
[providers_story_board].Offset(8, 5).Select
```

```
ElseIf [providers_story_board].Offset(7, 5) = _
[providers_story_board].Offset(11, 5) And _
[providers_story_board].Offset(7, 0) > 0.01 Then
[providers_story_board].Offset(7, 5).Select
```

```
ElseIf [providers_story_board].Offset(6, 5) = _
[providers_story_board].Offset(11, 5) And _
[providers_story_board].Offset(6, 0) > 0.01 Then
[providers_story_board].Offset(6, 5).Select
```

```
ElseIf [providers_story_board].Offset(5, 5) = _
[providers_story_board].Offset(11, 5) And _
[providers_story_board].Offset(5, 0) > 0.01 Then
[providers_story_board].Offset(5, 5).Select
```

```
ElseIf [providers_story_board].Offset(4, 5) = _
[providers_story_board].Offset(11, 5) And _
[providers_story_board].Offset(4, 0) > 0.01 Then
[providers_story_board].Offset(4, 5).Select
```

```
ElseIf [providers_story_board].Offset(3, 5) = _
[providers_story_board].Offset(11, 5) And _
[providers_story_board].Offset(3, 0) > 0.01 Then
[providers_story_board].Offset(3, 5).Select
```

```
ElseIf [providers_story_board].Offset(2, 5) = _
[providers_story_board].Offset(11, 5) And _
[providers_story_board].Offset(2, 0) > 0.01 Then
[providers_story_board].Offset(2, 5).Select
```

```
ElseIf [providers_story_board].Offset(1, 5) = _
[providers_story_board].Offset(11, 5) And _
[providers_story_board].Offset(1, 0) > 0.01 Then
[providers_story_board].Offset(1, 5).Select
End If
```

'equation that calculates the PROVIDER previous belief "for", "against" providers
'record of previous uncertainty

[Agent].Offset(2, 34) = [Agent].Offset(2, 33)
[Agent].Offset(2, 36) = [Agent].Offset(2, 35)
[Agent].Offset(2, 38) = [Agent].Offset(2, 37)

'assuming independence replace the old belief for with the new belief for
[Agent].Offset(2, 33) = ActiveCell.Offset(0, -3)

'assuming independence replace the old belief against with the new belief against
[Agent].Offset(2, 37) = ActiveCell.Offset(0, -1)

CHARACTERISES
'UPDATE THE LEVEL OF POSITIVE PRIOR KNOWLEDGE (PPK) THAT

'THE EVIDENCE PRESENTED TO THE PROVIDER

If ([Agent].Offset(2, 27) * ActiveCell.Offset(0, 0)) > _
[Agent].Offset(2, 13) Then
[Agent].Offset(2, 13) = [Agent].Offset(2, 27) * ActiveCell.Offset(0, 0)
Else: [Agent].Offset(2, 13) = [Agent].Offset(2, 13) * 0.99
End If

If ([Agent].Offset(2, 27) * ActiveCell.Offset(0, 1)) > _
[Agent].Offset(2, 15) Then
[Agent].Offset(2, 15) = [Agent].Offset(2, 27) * ActiveCell.Offset(0, 1)
Else: [Agent].Offset(2, 15) = [Agent].Offset(2, 15) * 0.99
End If

End Sub

Sub update_recipients_details_with_scenario_characterised_by_laest_NPK()

'SELECT THE DATA (WITHIN THE RECIPIENT'S STORY BOARD) THAT
'CHARACTERISES THE LEAST NEGATIVE PRIOR KNOWLEDGE (NPK)

Sheets("Agent environment").Select

TO THE

'CONDITIONAL LOGIC THAT STATES, "IF" THE CELL SELECTED IS EQUAL

'LEAST VALUE THEN SELECT THAT CELL
If [recipients_story_board].Offset(10, 4) = _
[recipients_story_board].Offset(12, 4) And _
[recipients_story_board].Offset(10, 0) > 0.01 Then
[recipients_story_board].Offset(10, 4).Select

ElseIf [recipients_story_board].Offset(9, 4) = _
[recipients_story_board].Offset(12, 4) And _
[recipients_story_board].Offset(9, 0) > 0.01 Then
[recipients_story_board].Offset(9, 4).Select

ElseIf [recipients_story_board].Offset(8, 4) = _
[recipients_story_board].Offset(12, 4) And _
[recipients_story_board].Offset(8, 0) > 0.01 Then
[recipients_story_board].Offset(8, 4).Select

ElseIf [recipients_story_board].Offset(7, 4) = _
[recipients_story_board].Offset(12, 4) And _
[recipients_story_board].Offset(7, 0) > 0.01 Then
[recipients_story_board].Offset(7, 4).Select

ElseIf [recipients_story_board].Offset(6, 4) = _
[recipients_story_board].Offset(12, 4) And _
[recipients_story_board].Offset(6, 0) > 0.01 Then
[recipients_story_board].Offset(6, 4).Select

ElseIf [recipients_story_board].Offset(5, 4) = _
[recipients_story_board].Offset(12, 4) And _
[recipients_story_board].Offset(5, 0) > 0.01 Then
[recipients_story_board].Offset(5, 4).Select

ElseIf [recipients_story_board].Offset(4, 4) = _
[recipients_story_board].Offset(4, 4) And _
[recipients_story_board].Offset(10, 0) > 0.01 Then
[recipients_story_board].Offset(4, 4).Select

ElseIf [recipients_story_board].Offset(3, 4) = _
[recipients_story_board].Offset(3, 4) And _
[recipients_story_board].Offset(10, 0) > 0.01 Then
[recipients_story_board].Offset(3, 4).Select

ElseIf [recipients_story_board].Offset(2, 4) = _
[recipients_story_board].Offset(12, 4) And _
[recipients_story_board].Offset(2, 0) > 0.01 Then

[recipients_story_board].Offset(2, 4).Select

ElseIf [recipients_story_board].Offset(1, 4) = _
[recipients_story_board].Offset(12, 4) And _
[recipients_story_board].Offset(1, 0) > 0.01 Then
[recipients_story_board].Offset(1, 4).Select
End If

'equation that calculates the recipient previous belief "for", "against" providers
'record of previous uncertainty

[Agent].Offset(1, 34) = [Agent].Offset(1, 33)
[Agent].Offset(1, 36) = [Agent].Offset(1, 35)
[Agent].Offset(1, 38) = [Agent].Offset(1, 37)

'assuming independence replace the old belief for with the new belief for
[Agent].Offset(1, 33) = ActiveCell.Offset(0, -4)

'assuming independence replace the old belief against with the new belief against
[Agent].Offset(1, 37) = ActiveCell.Offset(0, -2)

CHARACTERISES
'UPDATE THE LEVEL OF POSITIVE PRIOR KNOWLEDGE (PPK) THAT

'THE EVIDENCE PRESENTED TO THE recipient

If ([Agent].Offset(1, 27) * ActiveCell.Offset(0, -1)) > _
[Agent].Offset(1, 13) Then
[Agent].Offset(1, 13) = [Agent].Offset(1, 27) * ActiveCell.Offset(0, -1)
Else: [Agent].Offset(1, 13) = [Agent].Offset(1, 13) * 0.99
End If

If ([Agent].Offset(1, 27) * ActiveCell.Offset(0, 0)) > _
[Agent].Offset(1, 15) Then
[Agent].Offset(1, 15) = [Agent].Offset(1, 27) * ActiveCell.Offset(0, 0)
Else: [Agent].Offset(1, 15) = [Agent].Offset(1, 15) * 0.99
End If

End Sub

Sub update_providers_details_with_scenario_characterised_by_least_NPK()
Sheets("Agent environment").Select

'SELECT THE DATA (WITHIN THE PROVIDER'S STORY BOARD) THAT

'CHARACTERISES THE LEAST NEGATIVE PRIOR KNOWLEDGE (NPK)

TO THE

'CONDITIONAL LOGIC THAT STATES, "IF" THE CELL SELECTED IS EQUAL

'LEAST VALUE THEN SELECT THAT SELL
If [providers_story_board].Offset(10, 4) = _
[providers_story_board].Offset(12, 4) And _
[providers_story_board].Offset(10, 0) > 0.01 Then
[providers_story_board].Offset(10, 4).Select

ElseIf [providers_story_board].Offset(9, 4) = _
[providers_story_board].Offset(12, 4) And _
[providers_story_board].Offset(9, 0) > 0.01 Then
[providers_story_board].Offset(9, 4).Select

ElseIf [providers_story_board].Offset(8, 4) = _
[providers_story_board].Offset(12, 4) And _
[providers_story_board].Offset(8, 0) > 0.01 Then
[providers_story_board].Offset(8, 4).Select

ElseIf [providers_story_board].Offset(7, 4) = _
[providers_story_board].Offset(12, 4) And _
[providers_story_board].Offset(7, 0) > 0.01 Then
[providers_story_board].Offset(7, 4).Select

ElseIf [providers_story_board].Offset(6, 4) = _
[providers_story_board].Offset(12, 4) And _
[providers_story_board].Offset(6, 0) > 0.01 Then
[providers_story_board].Offset(6, 4).Select

ElseIf [providers_story_board].Offset(5, 4) = _
[providers_story_board].Offset(12, 4) And _
[providers_story_board].Offset(5, 0) > 0.01 Then
[providers_story_board].Offset(5, 4).Select

ElseIf [providers_story_board].Offset(4, 4) = _
[providers_story_board].Offset(12, 4) And _
[providers_story_board].Offset(4, 0) > 0.01 Then
[providers_story_board].Offset(4, 4).Select

ElseIf [providers_story_board].Offset(3, 4) = _
[providers_story_board].Offset(12, 4) And _
[providers_story_board].Offset(3, 0) > 0.01 Then
[providers_story_board].Offset(3, 4).Select

ElseIf [providers_story_board].Offset(2, 4) = _

```
[providers_story_board].Offset(12, 4) And _
[providers_story_board].Offset(2, 0) > 0.01 Then
[providers_story_board].Offset(2, 4).Select
```

```
ElseIf [providers_story_board].Offset(1, 4) = _
[providers_story_board].Offset(12, 4) And _
[providers_story_board].Offset(1, 0) > 0.01 Then
[providers_story_board].Offset(1, 4).Select
End If
```

'equation that calculates new belief

```
[Agent].Offset(2, 34) = [Agent].Offset(2, 33)
[Agent].Offset(2, 36) = [Agent].Offset(2, 35)
[Agent].Offset(2, 38) = [Agent].Offset(2, 37)
```

'assuming independence replace the old belief for with the new belief for

```
[Agent].Offset(2, 33) = ActiveCell.Offset(0, -4)
```

'assuming independence replace the old belief against with the new belief against

```
[Agent].Offset(2, 37) = ActiveCell.Offset(0, -2)
```

'UPDATE THE LEVEL OF PPK & NPK

```
If ([Agent].Offset(2, 27) * ActiveCell.Offset(0, -1)) > _
[Agent].Offset(2, 13) Then
[Agent].Offset(2, 13) = [Agent].Offset(2, 27) * ActiveCell.Offset(0, -1)
Else: [Agent].Offset(2, 13) = [Agent].Offset(2, 13) * 0.99
End If
```

```
If ([Agent].Offset(2, 27) * ActiveCell.Offset(0, 0)) > _
[Agent].Offset(2, 15) Then
[Agent].Offset(2, 15) = [Agent].Offset(2, 27) * ActiveCell.Offset(0, 0)
Else: [Agent].Offset(2, 15) = [Agent].Offset(2, 15) * 0.99
End If
```

End Sub

Sub update_recipients_details_with_scenario_characterised_by_greatest_NPK()

'SELECT THE DATA (WITHIN THE RECIPIENT'S STORY BOARD) THAT

'CHARACTERISES THE GREATEST NEGATIVE PRIOR KNOWLEDGE (NPK)

Sheets("Agent environment").Select

TO THE

'CONDITIONAL LOGIC THAT STATES, "IF" THE CELL SELECTED IS EQUAL

'MAXIMUM VALUE THEN SELECT THAT SELL

```
If [recipients_story_board].Offset(10, 4) = _
[recipients_story_board].Offset(11, 4) And _
[recipients_story_board].Offset(10, 0) > 0.1 Then
[recipients_story_board].Offset(10, 4).Select
```

```
ElseIf [recipients_story_board].Offset(9, 4) = _
[recipients_story_board].Offset(11, 4) And _
[recipients_story_board].Offset(9, 0) > 0.1 Then
[recipients_story_board].Offset(9, 4).Select
```

```
ElseIf [recipients_story_board].Offset(8, 4) = _
[recipients_story_board].Offset(11, 4) And _
[recipients_story_board].Offset(8, 0) > 0.1 Then
[recipients_story_board].Offset(8, 4).Select
```

```
ElseIf [recipients_story_board].Offset(7, 4) = _
[recipients_story_board].Offset(11, 4) And _
[recipients_story_board].Offset(7, 0) > 0.1 Then
[recipients_story_board].Offset(7, 4).Select
```

```
ElseIf [recipients_story_board].Offset(6, 4) = _
[recipients_story_board].Offset(11, 4) And _
[recipients_story_board].Offset(6, 0) > 0.1 Then
[recipients_story_board].Offset(6, 4).Select
```

```
ElseIf [recipients_story_board].Offset(5, 4) = _
[recipients_story_board].Offset(11, 4) And _
[recipients_story_board].Offset(5, 0) > 0.1 Then
[recipients_story_board].Offset(5, 4).Select
```

```
ElseIf [recipients_story_board].Offset(4, 4) = _
[recipients_story_board].Offset(11, 4) And _
[recipients_story_board].Offset(4, 0) > 0.1 Then
[recipients_story_board].Offset(4, 4).Select
```

```
ElseIf [recipients_story_board].Offset(3, 4) = _
[recipients_story_board].Offset(11, 4) And _
[recipients_story_board].Offset(3, 0) > 0.1 Then
[recipients_story_board].Offset(3, 4).Select
```

```
ElseIf [recipients_story_board].Offset(2, 4) = _
[recipients_story_board].Offset(11, 4) And _
```

```
[recipients_story_board].Offset(2, 0) > 0.1 Then
[recipients_story_board].Offset(2, 4).Select
```

```
ElseIf [recipients_story_board].Offset(1, 4) = _
[recipients_story_board].Offset(11, 4) And _
[recipients_story_board].Offset(1, 0) > 0.1 Then
[recipients_story_board].Offset(1, 4).Select
End If
```

'equation that calculates new belief

```
[Agent].Offset(1, 34) = [Agent].Offset(1, 33)
[Agent].Offset(1, 36) = [Agent].Offset(1, 35)
[Agent].Offset(1, 38) = [Agent].Offset(1, 37)
```

'assuming independence replace the old belief for with the new belief for

```
[Agent].Offset(1, 33) = ActiveCell.Offset(0, -4)
```

'assuming independence replace the old belief against with the new belief against

```
[Agent].Offset(1, 37) = ActiveCell.Offset(0, -2)
```

'UPDATE THE LEVEL OF PPK & NPK

```
If ([Agent].Offset(1, 27) * ActiveCell.Offset(0, -1)) > _
[Agent].Offset(1, 13) Then
[Agent].Offset(1, 13) = [Agent].Offset(1, 27) * ActiveCell.Offset(0, -1)
Else: [Agent].Offset(1, 13) = [Agent].Offset(1, 13) * 0.99
End If
```

```
If ([Agent].Offset(1, 27) * ActiveCell.Offset(0, 0)) > _
[Agent].Offset(1, 15) Then
[Agent].Offset(1, 15) = [Agent].Offset(1, 27) * ActiveCell.Offset(0, 0)
Else: [Agent].Offset(1, 15) = [Agent].Offset(1, 15) * 0.99
End If
```

End Sub

Sub update_providers_details_with_scenario_characterised_by_greatest_NPK()

'SELECT THE DATA (WITHIN THE PROVIDER'S STORY BOARD) THAT
'CHARACTERISES THE GREATEST NEGATIVE PRIOR KNOWLEDGE (NPK)

Sheets("Agent environment").Select

TO THE

'CONDITIONAL LOGIC THAT STATES, "IF" THE CELL SELECTED IS EQUAL

'MAXIMUM VALUE THEN SELECT THAT SELL

```
If [providers_story_board].Offset(10, 4) = _
[providers_story_board].Offset(11, 4) And _
[providers_story_board].Offset(10, 0) > 0.1 Then
[providers_story_board].Offset(10, 4).Select
```

```
ElseIf [providers_story_board].Offset(9, 4) = _
[providers_story_board].Offset(11, 4) And _
[providers_story_board].Offset(9, 0) > 0.1 Then
[providers_story_board].Offset(9, 4).Select
```

```
ElseIf [providers_story_board].Offset(8, 4) = _
[providers_story_board].Offset(11, 4) And _
[providers_story_board].Offset(8, 0) > 0.1 Then
[providers_story_board].Offset(8, 4).Select
```

```
ElseIf [providers_story_board].Offset(7, 4) = _
[providers_story_board].Offset(11, 4) And _
[providers_story_board].Offset(7, 0) > 0.1 Then
[providers_story_board].Offset(7, 4).Select
```

```
ElseIf [providers_story_board].Offset(6, 4) = _
[providers_story_board].Offset(11, 4) And _
[providers_story_board].Offset(6, 0) > 0.1 Then
[providers_story_board].Offset(6, 4).Select
```

```
ElseIf [providers_story_board].Offset(5, 4) = _
[providers_story_board].Offset(5, 4) And _
[providers_story_board].Offset(10, 0) > 0.1 Then
[providers_story_board].Offset(5, 4).Select
```

```
ElseIf [providers_story_board].Offset(4, 4) = _
[providers_story_board].Offset(4, 4) And _
[providers_story_board].Offset(10, 0) > 0.1 Then
[providers_story_board].Offset(4, 4).Select
```

```
ElseIf [providers_story_board].Offset(3, 4) = _
[providers_story_board].Offset(3, 4) And _
[providers_story_board].Offset(10, 0) > 0.1 Then
[providers_story_board].Offset(3, 4).Select
```

```
ElseIf [providers_story_board].Offset(2, 4) = _
```

```
[providers_story_board].Offset(2, 4) And _
[providers_story_board].Offset(10, 0) > 0.1 Then
[providers_story_board].Offset(2, 4).Select
```

```
ElseIf [providers_story_board].Offset(1, 4) = _
[providers_story_board].Offset(1, 4) And _
[providers_story_board].Offset(10, 0) > 0.1 Then
[providers_story_board].Offset(1, 4).Select
```

End If

```
'equation that calculates new belief
[Agent].Offset(2, 34) = [Agent].Offset(2, 33)
[Agent].Offset(2, 36) = [Agent].Offset(2, 35)
[Agent].Offset(2, 38) = [Agent].Offset(2, 37)
```

```
'assuming independence replace the old belief for with the new belief for
[Agent].Offset(2, 33) = ActiveCell.Offset(0, -4)
```

```
'assuming independence replace the old belief against with the new belief against
[Agent].Offset(2, 37) = ActiveCell.Offset(0, -2)
```

'UPDATE THE LEVEL OF PPK & NPK

```
If ([Agent].Offset(2, 27) * ActiveCell.Offset(0, -1)) > _
[Agent].Offset(2, 13) Then
[Agent].Offset(2, 13) = [Agent].Offset(2, 27) * ActiveCell.Offset(0, -1)
Else: [Agent].Offset(2, 13) = [Agent].Offset(2, 13) * 0.99
End If
```

```
If ([Agent].Offset(2, 27) * ActiveCell.Offset(0, 0)) > _
[Agent].Offset(2, 15) Then
[Agent].Offset(2, 15) = [Agent].Offset(2, 27) * ActiveCell.Offset(0, 0)
Else: [Agent].Offset(2, 15) = [Agent].Offset(2, 15) * 0.99
End If
```

End Sub

Sub update_recipients_details_according_to_deterministic_story_board()

```
'KEY:-----
'* [Rs_det_sb] = Recipient's story board
'-----
```

'UPDATE THE LEVEL OF UNCERTAINTY THAT CHARACTERISES THE EVIDENCE RECIPIENT IS PRESENTED WITH

```
'[Agent].Offset(1, 20) = [Agent].Offset(1, 19)
```

Call randomly_select_a_scenario_and_update_recipients_details

End Sub

Sub update_providers_details_according_to_deterministic_story_board()

```
'KEY:-----
'* [Ps_det_sb] = Provider's deterministic story board
'-----
```

Call randomly_select_a_scenario_and_update_providers_details

End Sub

Sub explore_data_output()

Call run

```
[Agent].Offset(1, -1) = "SI"
[Agent].Offset(2, -1) = "SI"
```

Call run

```
[Agent].Offset(1, -1) = "AI"
[Agent].Offset(2, -1) = "AI"
```

Call run

```
[Agent].Offset(1, -1) = "NW"
[Agent].Offset(2, -1) = "NW"
```

Call run

```

"
End Sub

Sub test_theory_of_calc_receptivity_from_propensity_to_trust()

Sheets("Sheet4").Select

Cells.Select
Selection.ClearContents

Range("A1").Select

Range("A1") = 1
Range("A2") = 1000

ActiveCell(Range("A1"), 2) = "AV+6(1-2)"
Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 2) = (Int((200 - 0 + 1) * Rnd + 0) / 100 _
        + Int((200 - 0 + 1) * Rnd + 0) / 100 + Int((200 - 0 + 1) * Rnd + 0) / 100 _
        + Int((200 - 0 + 1) * Rnd + 0) / 100 + Int((200 - 0 + 1) * Rnd + 0) / 100 _
        + Int((200 - 0 + 1) * Rnd + 0) / 100) / 6
Range("A1") = Range("A1") + 1
Loop

Range("A1") = 1
ActiveCell(Range("A1"), 3) = "Av+6(1-2)"
Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 3) = (Int((200 - 0 + 1) * Rnd + 0) / 100 _
        + Int((200 - 0 + 1) * Rnd + 0) / 100 + Int((200 - 0 + 1) * Rnd + 0) / 100 _
        + Int((200 - 0 + 1) * Rnd + 0) / 100) * (1 + Int((200 - 0 + 1) * Rnd + 0) / 100 _
        + Int((200 - 0 + 1) * Rnd + 0) / 100) / 6
Range("A1") = Range("A1") + 1
Loop

Range("A1") = 1
ActiveCell(Range("A1"), 4) = "PT+5"
Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 4) = Int((100 - 0 + 1) * Rnd + 0) / 100 *
        (1 + Int((100 - 0 + 1) * Rnd + 0) / 100) * (1 + Int((100 - 0 + 1) * Rnd + 0) / 100) _
        * (1 + Int((100 - 0 + 1) * Rnd + 0) / 100) * (1 + Int((100 - 0 + 1) * Rnd + 0) / 100) _
        * (1 + Int((100 - 0 + 1) * Rnd + 0) / 100)
Range("A1") = Range("A1") + 1

```

```

Loop
Range("A1") = 1
ActiveCell(Range("A1"), 5) = "PT+5"
Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 5) = Int((100 - 0 + 1) * Rnd + 0) / 100 *
        (1 + Int((100 - 0 + 1) * Rnd + 0) / 100) * (1 + Int((100 - 0 + 1) * Rnd + 0) / 100) _
        * (1 + Int((100 - 0 + 1) * Rnd + 0) / 100) * (1 + Int((100 - 0 + 1) * Rnd + 0) / 100) _
        * (1 + Int((100 - 0 + 1) * Rnd + 0) / 100)
Range("A1") = Range("A1") + 1
Loop

Range("A1") = 1
ActiveCell(Range("A1"), 6) = "PT+4-1"
Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 6) = Int((100 - 0 + 1) * Rnd + 0) / 100 *
        (1 + Int((100 - 0 + 1) * Rnd + 0) / 100) * (1 + Int((100 - 0 + 1) * Rnd + 0) / 100) _
        * (1 + Int((100 - 0 + 1) * Rnd + 0) / 100) * (1 + Int((100 - 0 + 1) * Rnd + 0) / 100) _
        * (1 + Int((0 - (-100) + 1) * Rnd + (-100)) / 100)
Range("A1") = Range("A1") + 1
Loop
Range("A1") = 1
ActiveCell(Range("A1"), 7) = "PT+4-1"
Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 7) = Int((100 - 0 + 1) * Rnd + 0) / 100 *
        (1 + Int((100 - 0 + 1) * Rnd + 0) / 100) * (1 + Int((100 - 0 + 1) * Rnd + 0) / 100) _
        * (1 + Int((100 - 0 + 1) * Rnd + 0) / 100) * (1 + Int((100 - 0 + 1) * Rnd + 0) / 100) _
        * (1 + Int((0 - (-100) + 1) * Rnd + (-100)) / 100)
Range("A1") = Range("A1") + 1
Loop

Range("A1") = 1
ActiveCell(Range("A1"), 8) = "PT+3-2"
Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 8) = Int((100 - 0 + 1) * Rnd + 0) / 100 *
        (1 + Int((100 - 0 + 1) * Rnd + 0) / 100) * (1 + Int((100 - 0 + 1) * Rnd + 0) / 100) _
        * (1 + Int((100 - 0 + 1) * Rnd + 0) / 100) * (1 + Int((0 - (-100) + 1) * Rnd + (-100)) / 100) _
        * (1 + Int((0 - (-100) + 1) * Rnd + (-100)) / 100)
Range("A1") = Range("A1") + 1

Loop
Range("A1") = 1
ActiveCell(Range("A1"), 9) = "PT+3-2"
Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 9) = Int((100 - 0 + 1) * Rnd + 0) / 100 *
        (1 + Int((100 - 0 + 1) * Rnd + 0) / 100) * (1 + Int((100 - 0 + 1) * Rnd + 0) / 100) _
        * (1 + Int((100 - 0 + 1) * Rnd + 0) / 100) * (1 + Int((0 - (-100) + 1) * Rnd + (-100)) / 100) _

```



```

Range("A1") = 1
ActiveCell(Range("A1"), 40) = "=1PT*Av(+1,-4)"
Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 40) = (1 + Int((100 - 0 + 1) * Rnd + 0) / 100) * _
    ((Int((100 - 0 + 1) * Rnd + 0) / 100 + Int((0 - (-100) + 1) * Rnd + (-100)) / 100 + _
    Int((0 - (-100) + 1) * Rnd + (-100)) / 100 + Int((0 - (-100) + 1) * Rnd + (-100)) / 100 + _
    Int((0 - (-100) + 1) * Rnd + (-100)) / 100) / 5)
Range("A1") = Range("A1") + 1
Loop
Range("A1") = 1
ActiveCell(Range("A1"), 41) = "=1PT*Av(+1,-4)"
Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 41) = (1 + Int((100 - 0 + 1) * Rnd + 0) / 100) * _
    ((Int((100 - 0 + 1) * Rnd + 0) / 100 + Int((0 - (-100) + 1) * Rnd + (-100)) / 100 + _
    Int((0 - (-100) + 1) * Rnd + (-100)) / 100 + Int((0 - 0 + 1) * Rnd + (-100)) / 100 + _
    Int((0 - (-100) + 1) * Rnd + (-100)) / 100) / 5)
Range("A1") = Range("A1") + 1

```

```
Range("A1") = 1
ActiveCell(Range("A1"), 46) = "Av+4-2"
```



```
Range("A1") = Range("A1") + 1
Loop
```

```
End Sub
```

```
Sub test_frequency_of_scores_close_to_zero()
```

```
Sheets("Sheet5").Select
```

```
[average_table].ClearContents
[StartValue].ClearContents
Range("A1").Select
```

```
Range("A1") = 1
```

```
ActiveCell(Range("A1"), 2) = "15-0"
Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 2) = Int((15 - 0 + 1) * Rnd + 0) / 100
Range("A1") = Range("A1") + 1
Loop
```

```
Range("A1") = 1
ActiveCell(Range("A1"), 3) = "15-0"
Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 3) = Int((15 - 0 + 1) * Rnd + 0) / 100
Range("A1") = Range("A1") + 1
Loop
```

```
Range("A1") = 1
ActiveCell(Range("A1"), 4) = "30-0"
Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 4) = Int((30 - 0 + 1) * Rnd + 0) / 100
Range("A1") = Range("A1") + 1
Loop
Range("A1") = 1
ActiveCell(Range("A1"), 5) = "30-0"
Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 5) = Int((30 - 0 + 1) * Rnd + 0) / 100
Range("A1") = Range("A1") + 1
Loop
```

```
Range("A1") = 1
ActiveCell(Range("A1"), 6) = "45-0"
Do While Range("A1") < Range("A2")
```

```
    ActiveCell((Range("A1") + 1), 6) = Int((45 - 0 + 1) * Rnd + 0) / 100
Range("A1") = Range("A1") + 1
Loop
Range("A1") = 1
ActiveCell(Range("A1"), 7) = "45-0"
Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 7) = Int((45 - 0 + 1) * Rnd + 0) / 100
Range("A1") = Range("A1") + 1
Loop
```

```
Range("A1") = 1
ActiveCell(Range("A1"), 8) = "60-0"
Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 8) = Int((60 - 0 + 1) * Rnd + 0) / 100
Range("A1") = Range("A1") + 1
Loop
Range("A1") = 1
ActiveCell(Range("A1"), 9) = "60-0"
Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 9) = Int((60 - 0 + 1) * Rnd + 0) / 100
Range("A1") = Range("A1") + 1
Loop
```

```
Range("A1") = 1
ActiveCell(Range("A1"), 10) = "75-0"
Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 10) = Int((75 - 0 + 1) * Rnd + 0) / 100
Range("A1") = Range("A1") + 1
Loop
Range("A1") = 1
ActiveCell(Range("A1"), 11) = "75-0"
Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 11) = Int((75 - 0 + 1) * Rnd + 0) / 100
Range("A1") = Range("A1") + 1
Loop
```

```
Range("A1") = 1
ActiveCell(Range("A1"), 12) = "100-0"
Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 12) = Int((100 - 0 + 1) * Rnd + 0) / 100
Range("A1") = Range("A1") + 1
Loop
Range("A1") = 1
ActiveCell(Range("A1"), 13) = "100-0"
Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 13) = Int((100 - 0 + 1) * Rnd + 0) / 100
```

```
Range("A1") = Range("A1") + 1
Loop
```

End Sub

Sub test_average_receptivity()

Sheets("Sheet6").Select

[test_R_table].ClearContents

Range("A1").Select

Range("A1") = 1

ActiveCell(Range("A1"), 2) = "Ag's PT Best"

Do While Range("A1") < Range("A2")

ActiveCell((Range("A1") + 1), 2) = (Int((100 - 55 + 1) * Rnd + 55) / 100 + _
Int((55 - 45 + 1) * Rnd + 45) / 100 + Int((55 - 45 + 1) * Rnd + 45) / 100) / 3
Range("A1") = Range("A1") + 1

Loop

Range("A1") = 1

ActiveCell(Range("A1"), 3) = "Ag's PT Best"

Do While Range("A1") < Range("A2")

ActiveCell((Range("A1") + 1), 3) = (Int((100 - 55 + 1) * Rnd + 55) / 100 + _
Int((55 - 45 + 1) * Rnd + 45) / 100 + Int((55 - 45 + 1) * Rnd + 45) / 100) / 3
Range("A1") = Range("A1") + 1

Loop

Range("A1") = 1

ActiveCell(Range("A1"), 4) = "Av's PT Worst"

Do While Range("A1") < Range("A2")

ActiveCell((Range("A1") + 1), 4) = (Int((45 - 0 + 1) * Rnd + 0) / 100 + _
Int((45 - 0 + 1) * Rnd + 0) / 100 + Int((45 - 0 + 1) * Rnd + 0) / 100) / 3
Range("A1") = Range("A1") + 1

Loop

Range("A1") = 1

ActiveCell(Range("A1"), 5) = "Av's PT Worst"

Do While Range("A1") < Range("A2")

ActiveCell((Range("A1") + 1), 5) = (Int((45 - 0 + 1) * Rnd + 0) / 100 + _
Int((45 - 0 + 1) * Rnd + 0) / 100 + Int((45 - 0 + 1) * Rnd + 0) / 100) / 3
Range("A1") = Range("A1") + 1

Loop

Range("A1") = 1

ActiveCell(Range("A1"), 6) = "Ag's TW Best"

Do While Range("A1") < Range("A2")

ActiveCell((Range("A1") + 1), 6) = (Int((100 - 55 + 1) * Rnd + 55) / 100 + _
Int((55 - 45 + 1) * Rnd + 45) / 100) / 2
Range("A1") = Range("A1") + 1

Loop

Range("A1") = 1

ActiveCell(Range("A1"), 7) = "Ag's TW Best"

Do While Range("A1") < Range("A2")

ActiveCell((Range("A1") + 1), 7) = (Int((100 - 55 + 1) * Rnd + 55) / 100 + _
Int((55 - 45 + 1) * Rnd + 45) / 100) / 2
Range("A1") = Range("A1") + 1

Loop

Range("A1") = 1

ActiveCell(Range("A1"), 8) = "Av's TW Worst"

Do While Range("A1") < Range("A2")

ActiveCell((Range("A1") + 1), 8) = (Int((45 - 0 + 1) * Rnd + 0) / 100 + _
Int((45 - 0 + 1) * Rnd + 0) / 100) / 2
Range("A1") = Range("A1") + 1

Loop

Range("A1") = 1

ActiveCell(Range("A1"), 9) = "Av's TW Worst"

Do While Range("A1") < Range("A2")

ActiveCell((Range("A1") + 1), 9) = (Int((45 - 0 + 1) * Rnd + 0) / 100 + _
Int((45 - 0 + 1) * Rnd + 0) / 100) / 2
Range("A1") = Range("A1") + 1

Loop

Range("A1") = 1

ActiveCell(Range("A1"), 10) = "Ag's RP Best"

Do While Range("A1") < Range("A2")

ActiveCell((Range("A1") + 1), 10) = (Int((100 - 55 + 1) * Rnd + 55) / 100 + _
Int((55 - 45 + 1) * Rnd + 45) / 100) / 2

```

Range("A1") = Range("A1") + 1
Loop
Range("A1") = 1
ActiveCell(Range("A1"), 11) = "Ag's RP Bset"
Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 11) = (Int((100 - 55 + 1) * Rnd + 55) / 100 + _
        Int((55 - 45 + 1) * Rnd + 45) / 100) / 2
Range("A1") = Range("A1") + 1
Loop

```

```

Range("A1") = 1
ActiveCell(Range("A1"), 12) = "Av's RP Worst"
Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 12) = (Int((45 - 0 + 1) * Rnd + 0) / 100 + _
        Int((45 - 0 + 1) * Rnd + 0) / 100) / 2
Range("A1") = Range("A1") + 1
Loop
Range("A1") = 1
ActiveCell(Range("A1"), 13) = "Av's RP Worst"
Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 13) = (Int((45 - 0 + 1) * Rnd + 0) / 100 + _
        Int((45 - 0 + 1) * Rnd + 0) / 100) / 2
Range("A1") = Range("A1") + 1
Loop

```

```

Range("A1") = 1
ActiveCell(Range("A1"), 14) = "MtS Best"
Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 14) = Int((100 - 60 + 1) * Rnd + 60) / 100
Range("A1") = Range("A1") + 1
Loop
Range("A1") = 1
ActiveCell(Range("A1"), 15) = "MtS Best"
Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 15) = Int((100 - 60 + 1) * Rnd + 60) / 100
Range("A1") = Range("A1") + 1
Loop

```

```

Range("A1") = 1
ActiveCell(Range("A1"), 16) = "MtS Worst"

```

```

Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 16) = Int((30 - 0 + 1) * Rnd + 0) / 100
Range("A1") = Range("A1") + 1
Loop
Range("A1") = 1
ActiveCell(Range("A1"), 17) = "MtS Worst"
Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 17) = Int((30 - 0 + 1) * Rnd + 0) / 100
Range("A1") = Range("A1") + 1
Loop

```

```

Range("A1") = 1
ActiveCell(Range("A1"), 18) = "MtP Best"
Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 18) = Int((100 - 60 + 1) * Rnd + 60) / 100
Range("A1") = Range("A1") + 1
Loop
Range("A1") = 1
ActiveCell(Range("A1"), 19) = "MtP Best"
Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 19) = Int((100 - 60 + 1) * Rnd + 60) / 100
Range("A1") = Range("A1") + 1
Loop

```

```

Range("A1") = 1
ActiveCell(Range("A1"), 20) = "MtP Worst"
Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 20) = Int((30 - 0 + 1) * Rnd + 0) / 100
Range("A1") = Range("A1") + 1
Loop
Range("A1") = 1
ActiveCell(Range("A1"), 21) = "MtP Worst"
Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 21) = Int((30 - 0 + 1) * Rnd + 0) / 100
Range("A1") = Range("A1") + 1
Loop

```

```

'-----
'Recipients WILLINGNESS
'-----

```

```

Range("A1").Select

```

```

Range("A1") = 1
ActiveCell(Range("A1"), 22) = "rand NPK"
ActiveCell(Range("A1"), 23) = "rand NPK"
Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 22) = Int((100 - 50 + 1) * Rnd + 50) / 100
    ActiveCell((Range("A1") + 1), 23) = Int((50 - 0 + 1) * Rnd + 0) / 100
Range("A1") = Range("A1") + 1
Loop

Range("A1").Select
'Best possible Prior Knowledge update
Range("A1") = 1
ActiveCell(Range("A1"), 24) = "Best PPK"
ActiveCell(Range("A1"), 25) = "Worst PPK"
ActiveCell(Range("A1"), 26) = "Best NPK"
ActiveCell(Range("A1"), 27) = "Worst NPK"
ActiveCell((Range("A1") + 1), 24) = Int((100 - 50 + 1) * Rnd + 50) / 100
ActiveCell((Range("A1") + 1), 25) = Int((100 - 50 + 1) * Rnd + 50) / 100
ActiveCell((Range("A1") + 1), 26) = Int((50 - 0 + 1) * Rnd + 0) / 100
ActiveCell((Range("A1") + 1), 27) = Int((50 - 0 + 1) * Rnd + 0) / 100

Do While Range("A1") < Range("A2")
    'Best PPK
    ActiveCell((Range("A1") + 1), 24) = ActiveCell((Range("A1") + 1), 24) * 0.99
    If Rnd() < 0.9 Then
        If ActiveCell((Range("A1") + 1), 22) > ActiveCell((Range("A1") + 1), 24) Then
            ActiveCell((Range("A1") + 1), 24) = ActiveCell((Range("A1") + 1), 22)
        Else: ActiveCell((Range("A1") + 1), 24) = ActiveCell((Range("A1") + 1), 24)
        End If
    End If

    'Worst PPK
    ActiveCell((Range("A1") + 1), 25) = ActiveCell((Range("A1") + 1), 25) * 0.99
    If Rnd() < 0.9 Then
        If ActiveCell((Range("A1") + 1), 22) > ActiveCell((Range("A1") + 1), 25) Then
            ActiveCell((Range("A1") + 1), 25) = ActiveCell((Range("A1") + 1), 22)
        Else: ActiveCell((Range("A1") + 1), 25) = ActiveCell((Range("A1") + 1), 25)
        End If
    End If

    'Best NPK
    ActiveCell((Range("A1") + 1), 26) = ActiveCell((Range("A1") + 1), 26) * 0.99
    If Rnd() < 0.9 Then
        If ActiveCell((Range("A1") + 1), 23) > ActiveCell((Range("A1") + 1), 26) Then
            ActiveCell((Range("A1") + 1), 26) = ActiveCell((Range("A1") + 1), 23)

```

```

        Else: ActiveCell((Range("A1") + 1), 26) = ActiveCell((Range("A1") + 1), 26)
        End If
    End If

    'Worst NPK
    ActiveCell((Range("A1") + 1), 27) = ActiveCell((Range("A1") + 1), 27) * 0.99
    If Rnd() < 0.9 Then
        If ActiveCell((Range("A1") + 1), 23) > ActiveCell((Range("A1") + 1), 27) Then
            ActiveCell((Range("A1") + 1), 27) = ActiveCell((Range("A1") + 1), 24)
        Else: ActiveCell((Range("A1") + 1), 27) = ActiveCell((Range("A1") + 1), 27)
        End If
    End If

Range("A1") = Range("A1") + 1
Loop

'R's worst possible W
Range("A1").Select
Range("A1") = 1
ActiveCell(Range("A1"), 28) = "R's W Worst"
Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 28) = ActiveCell((Range("A1") + 1), 25) -
ActiveCell((Range("A1") + 1), 27)
    Range("A1") = Range("A1") + 1
Loop

'R's best possible W
Range("A1").Select
Range("A1") = 1
ActiveCell(Range("A1"), 29) = "R's W Best"
Do While Range("A1") < Range("A2")
    ActiveCell((Range("A1") + 1), 29) = ActiveCell((Range("A1") + 1), 24) -
ActiveCell((Range("A1") + 1), 26)
    Range("A1") = Range("A1") + 1
Loop

End Sub

```

