Guidance Document on PIMs Dkt. No. 4943

- https://ripuc.ri.gov/eventsactions/docket/4943page.html

Guidance Document:

- https://ripuc.ri.gov/sites/g/files/xkgbur841/files/eventsactions/docket/4943-PIMs_Guidance_Document_Approved.pdf

21-23 3YR EE Plan Dkt. No. 5076

- https://ripuc.ri.gov/eventsactions/docket/5076page.html

Order

- https://ripuc.ri.gov/sites/g/files/xkgbur841/files/eventsactions/docket/5076-NGrid-Ord24225-%289-21-2021%29.pdf

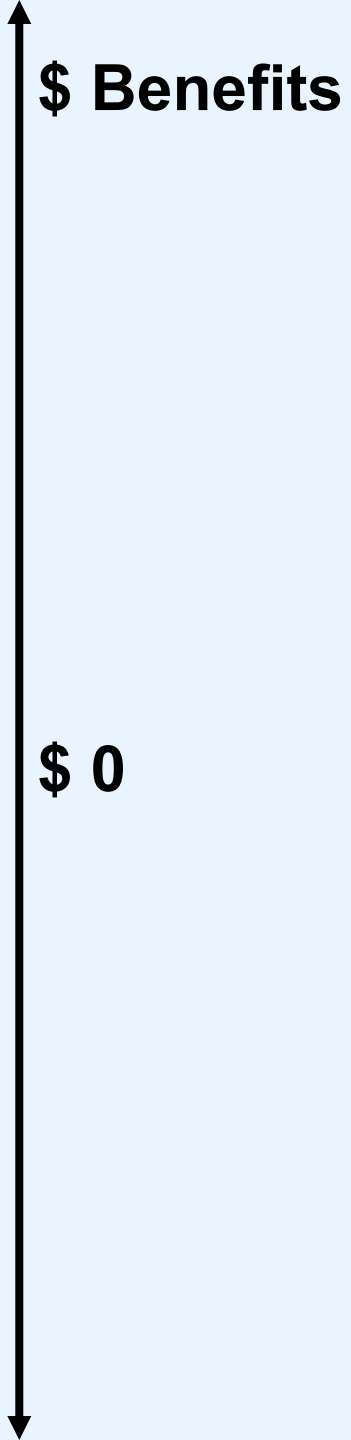
Performance Space:

- All of the performance metrics you care about are dimensions of performance
- The space these dimensions create is the “performance space”

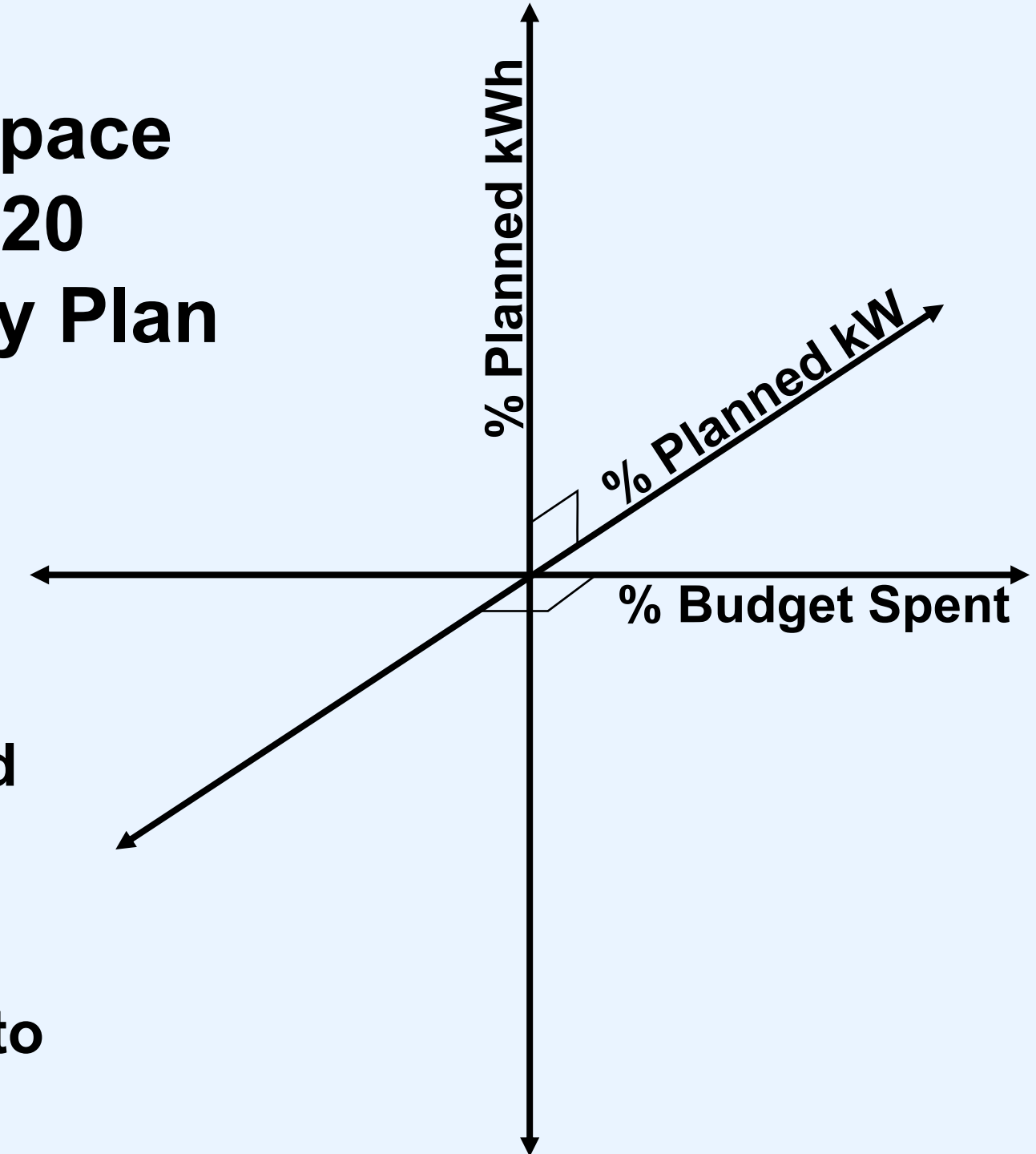
Here is a one-dimensional performance space

There is only one metric that defines performance:

- Dollars of benefits achieved in the program



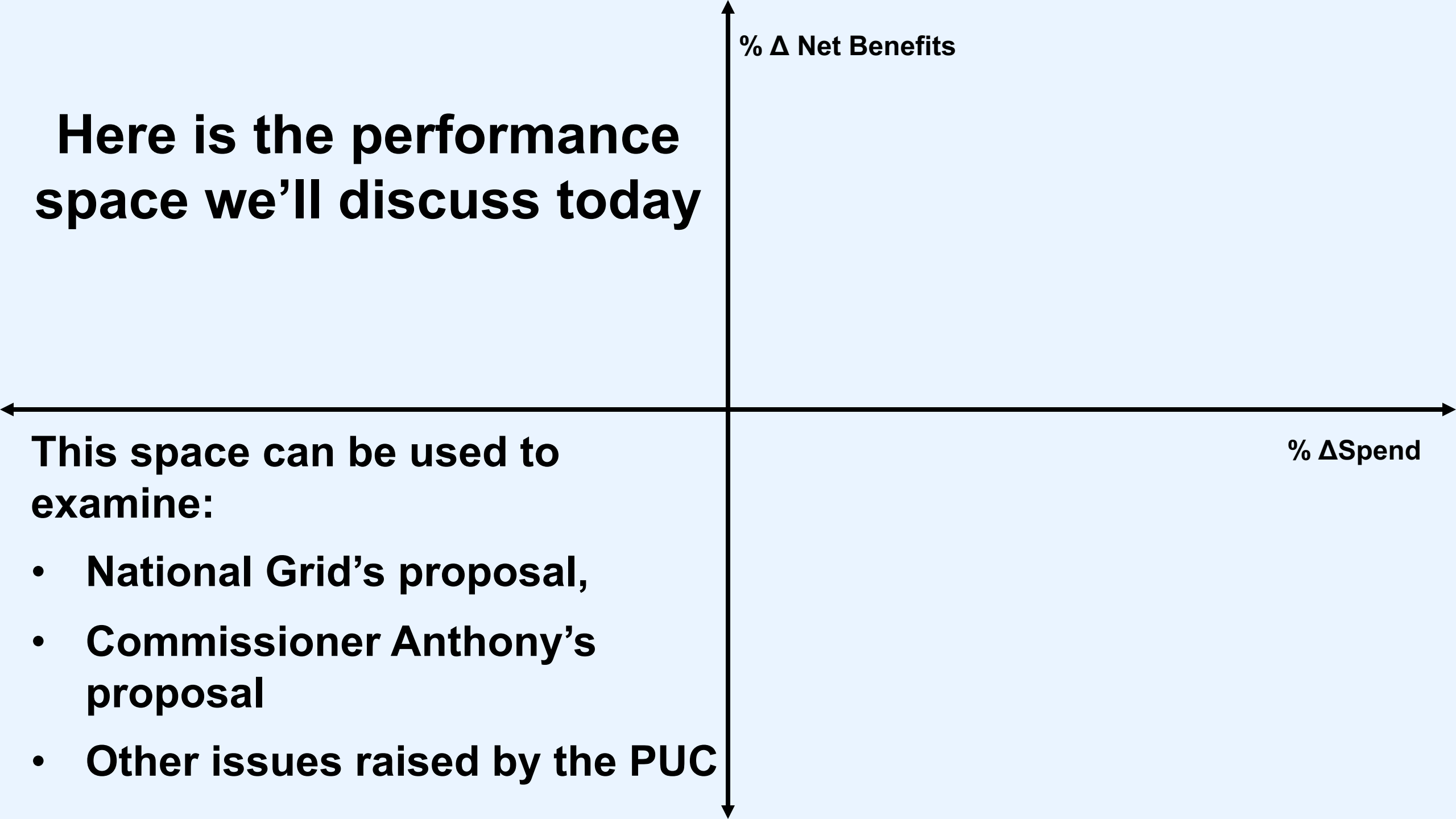
Here the performance space for National Grid's 2020 Electric Energy Efficiency Plan



Three dimensions define performance:

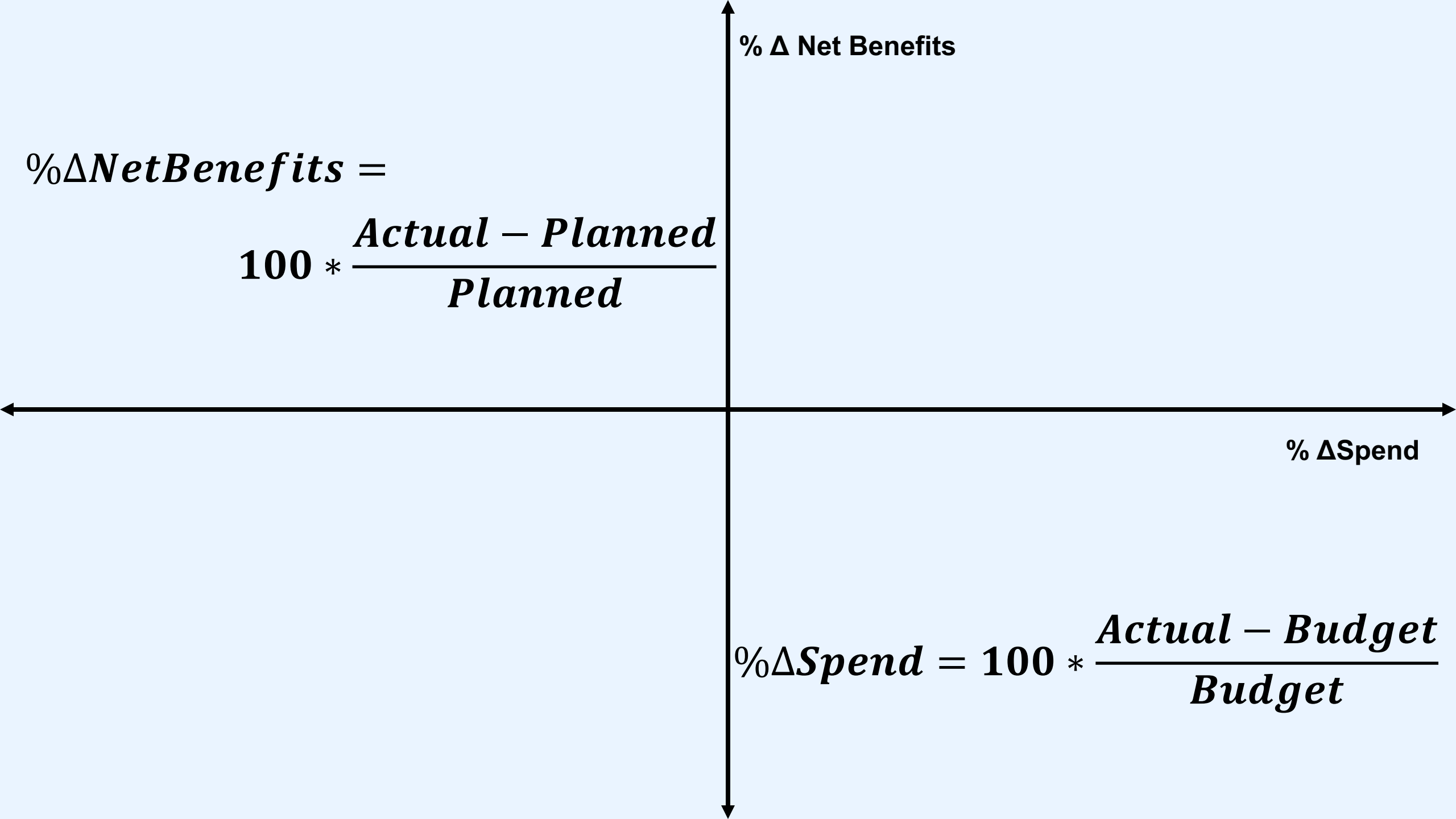
- **Annual kilowatt-hours saved**
- **Annual kilowatts of demand avoided**
- **Actual spending compared to the budget**

Here is the performance space we'll discuss today



This space can be used to examine:

- **National Grid's proposal,**
- **Commissioner Anthony's proposal**
- **Other issues raised by the PUC**

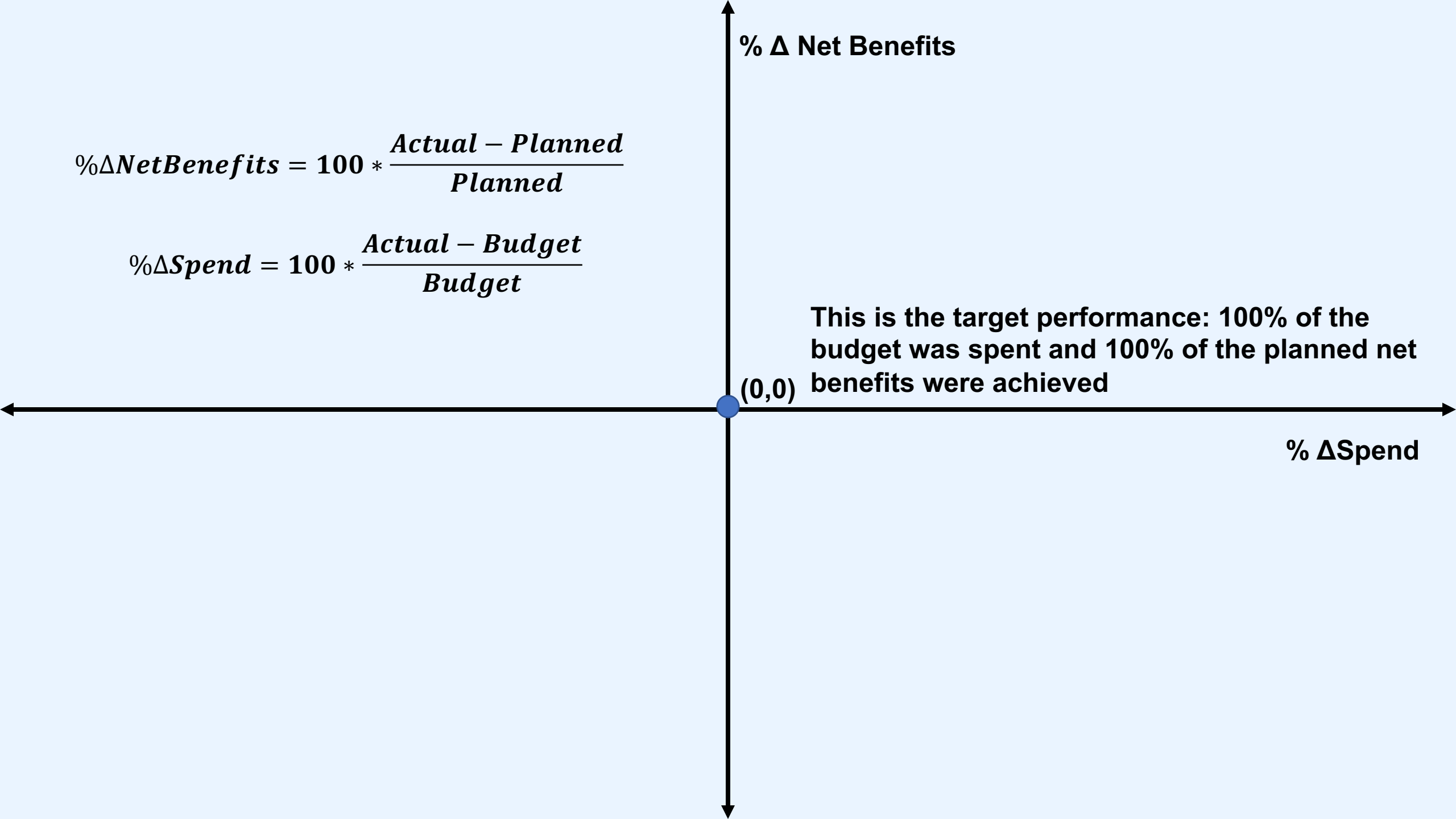


$$\%\Delta NetBenefits = 100 * \frac{Actual - Planned}{Planned}$$

$$\%\Delta Spend = 100 * \frac{Actual - Budget}{Budget}$$

$$\%\Delta NetBenefits = 100 * \frac{Actual - Planned}{Planned}$$

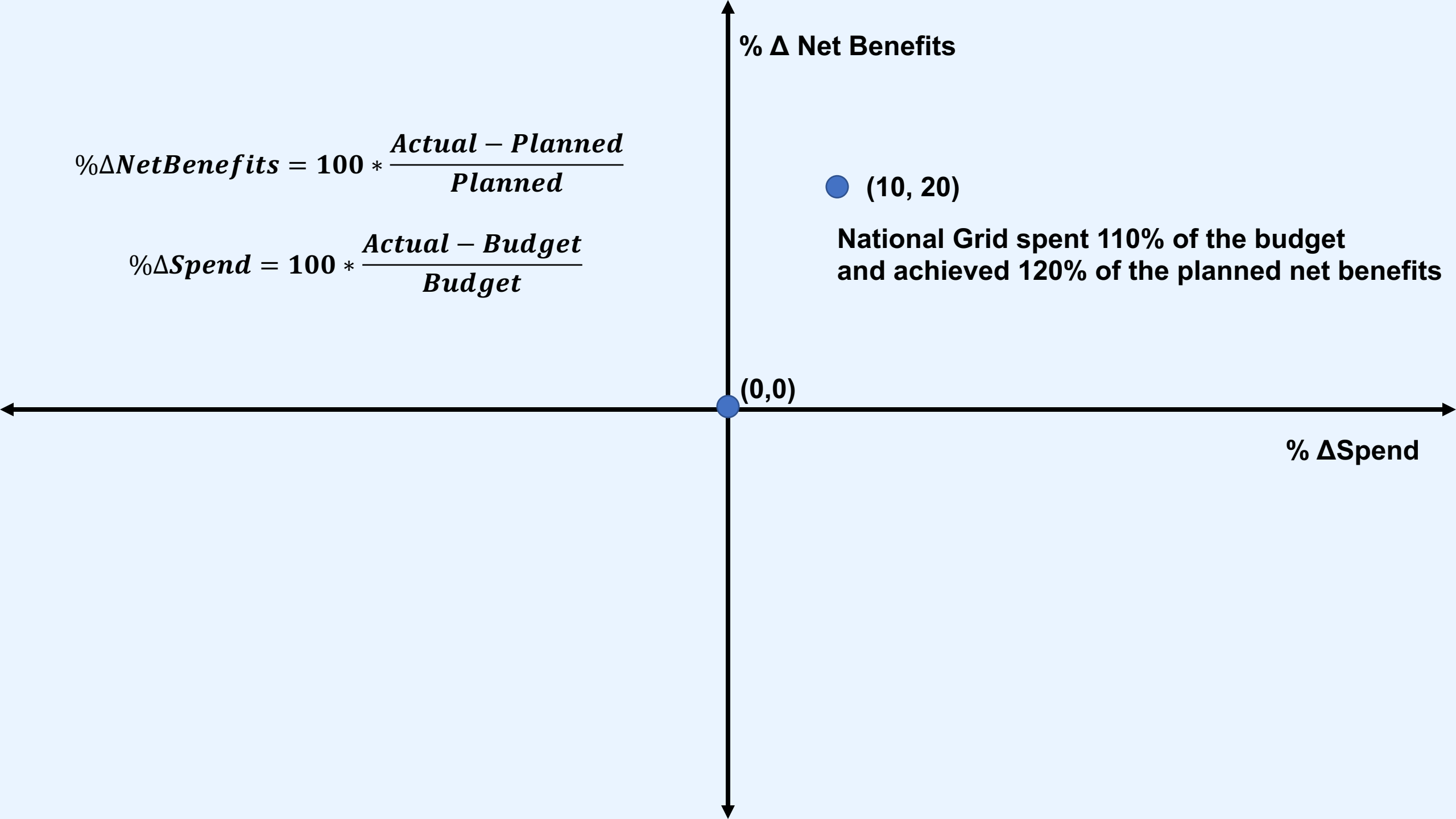
$$\%\Delta Spend = 100 * \frac{Actual - Budget}{Budget}$$



This is the target performance: 100% of the budget was spent and 100% of the planned net benefits were achieved

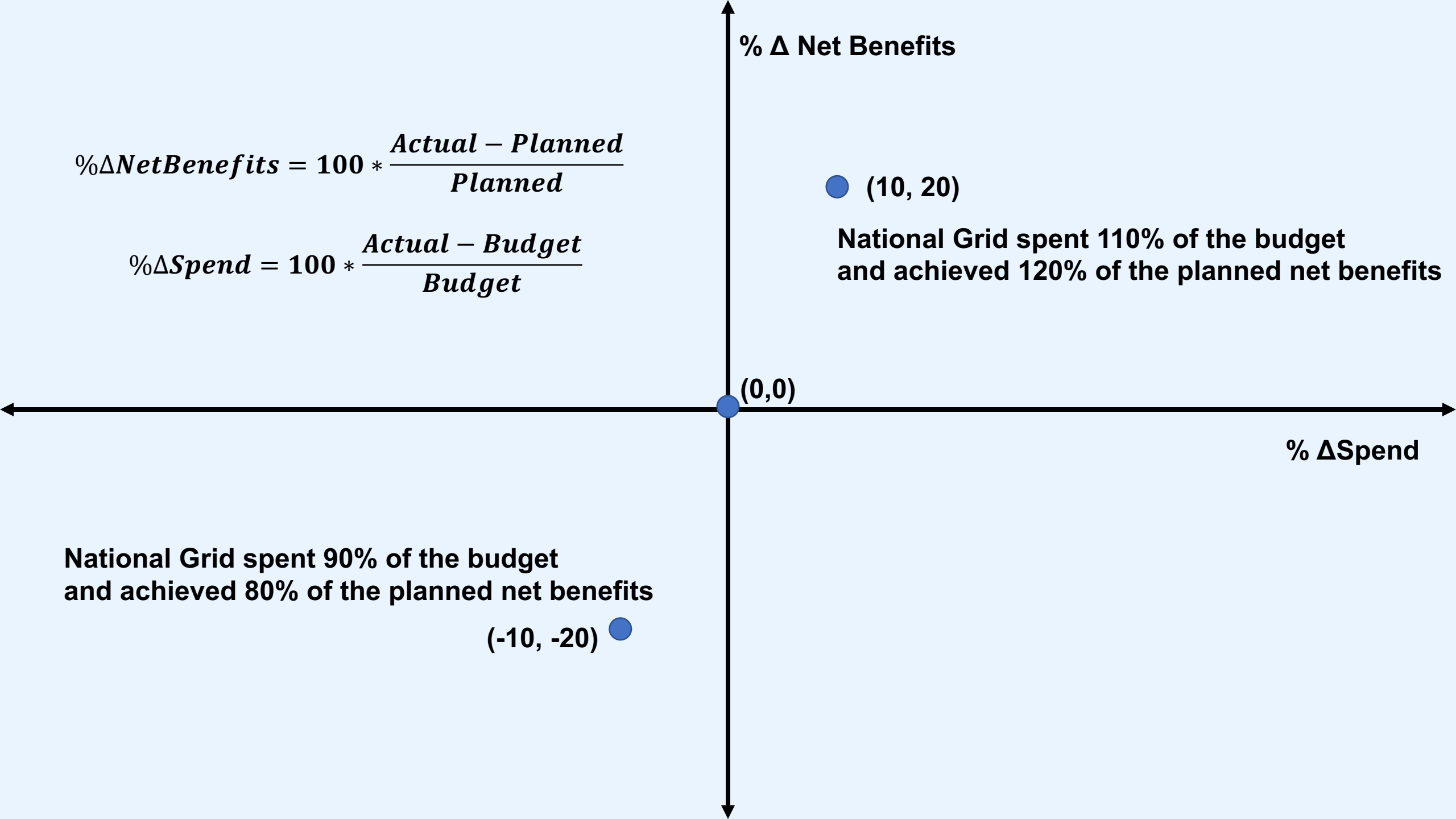
$$\%\Delta NetBenefits = 100 * \frac{Actual - Planned}{Planned}$$

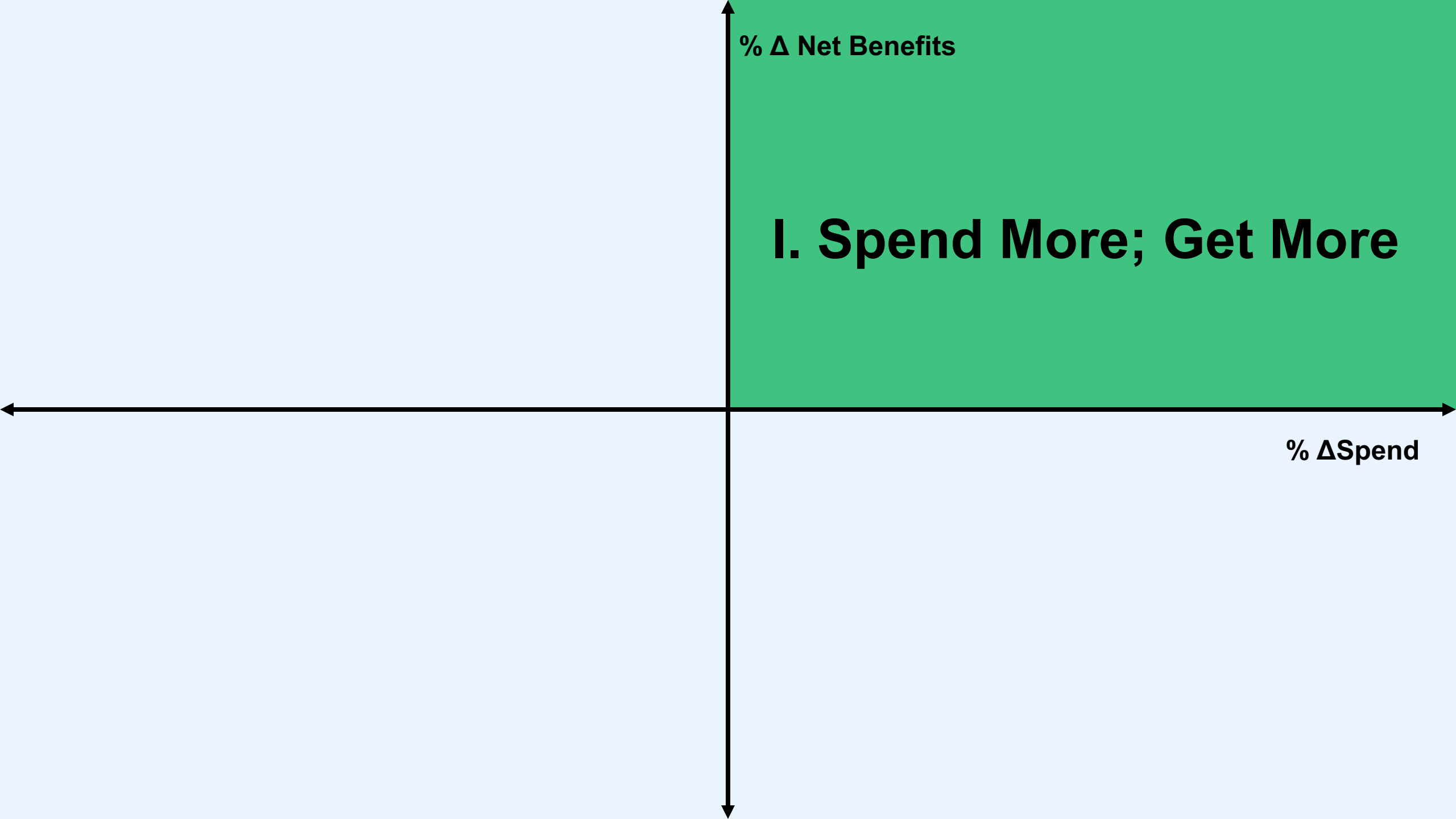
$$\%\Delta Spend = 100 * \frac{Actual - Budget}{Budget}$$



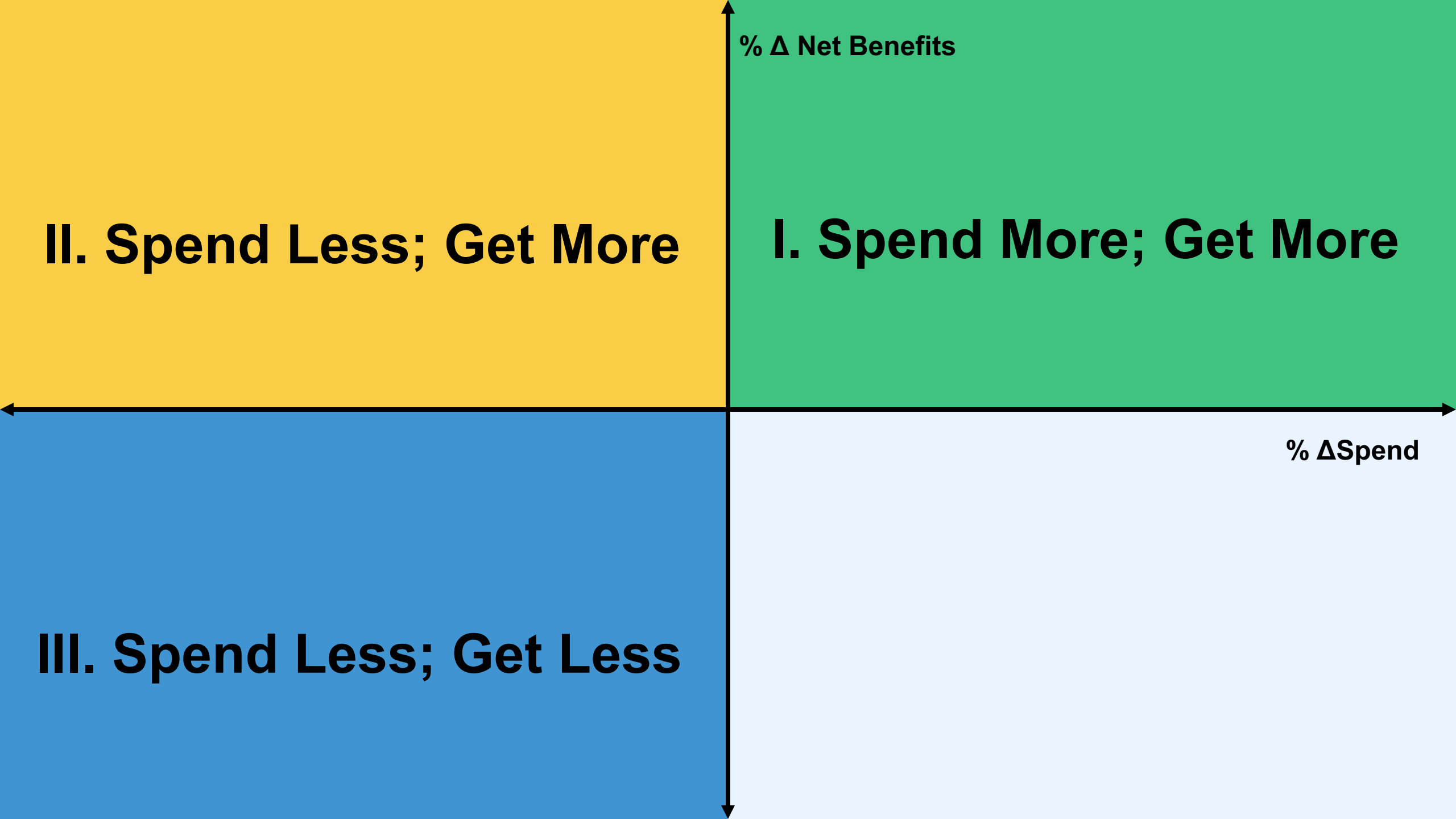
$$\%\Delta NetBenefits = 100 * \frac{Actual - Planned}{Planned}$$

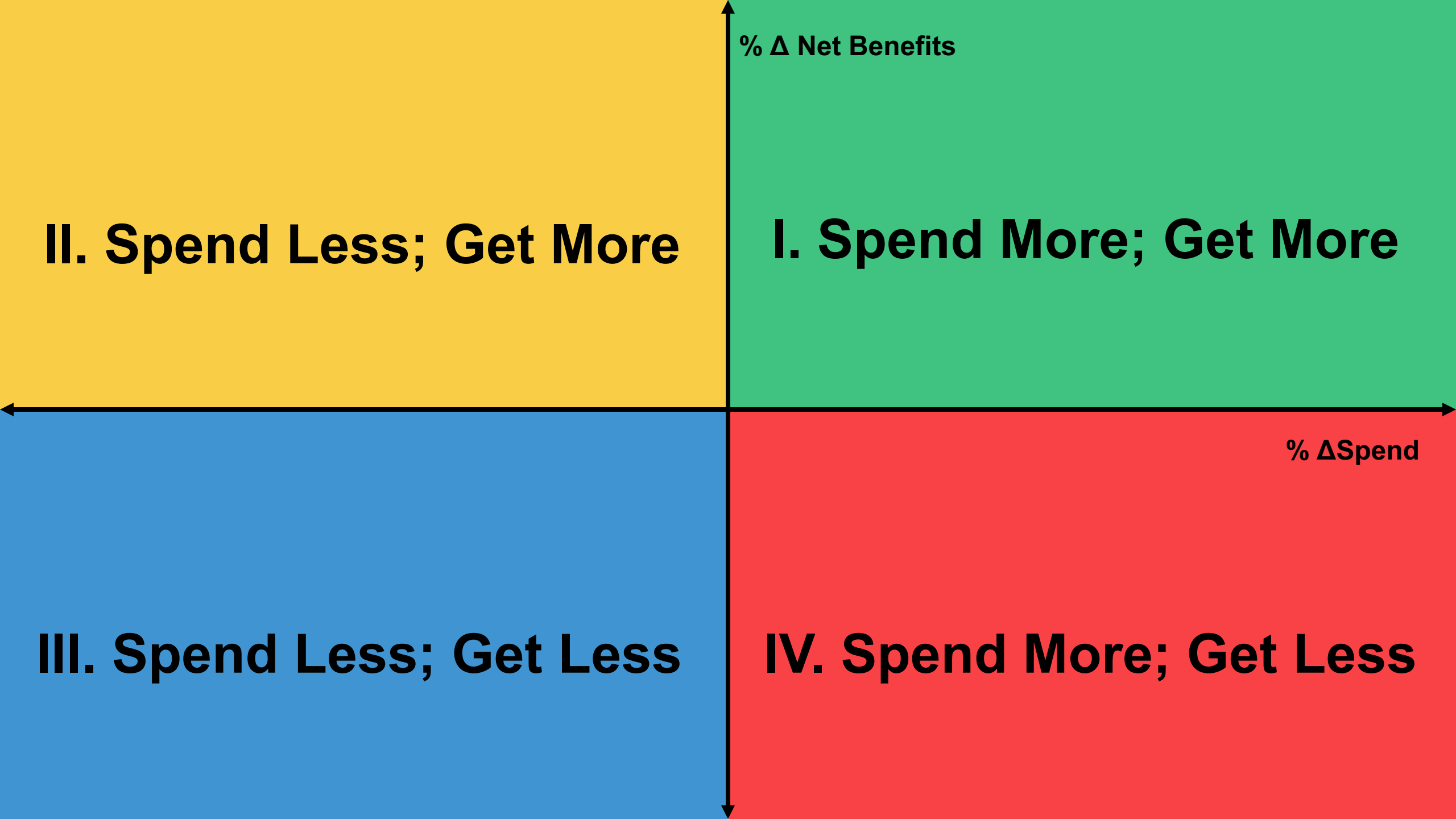
$$\%\Delta Spend = 100 * \frac{Actual - Budget}{Budget}$$

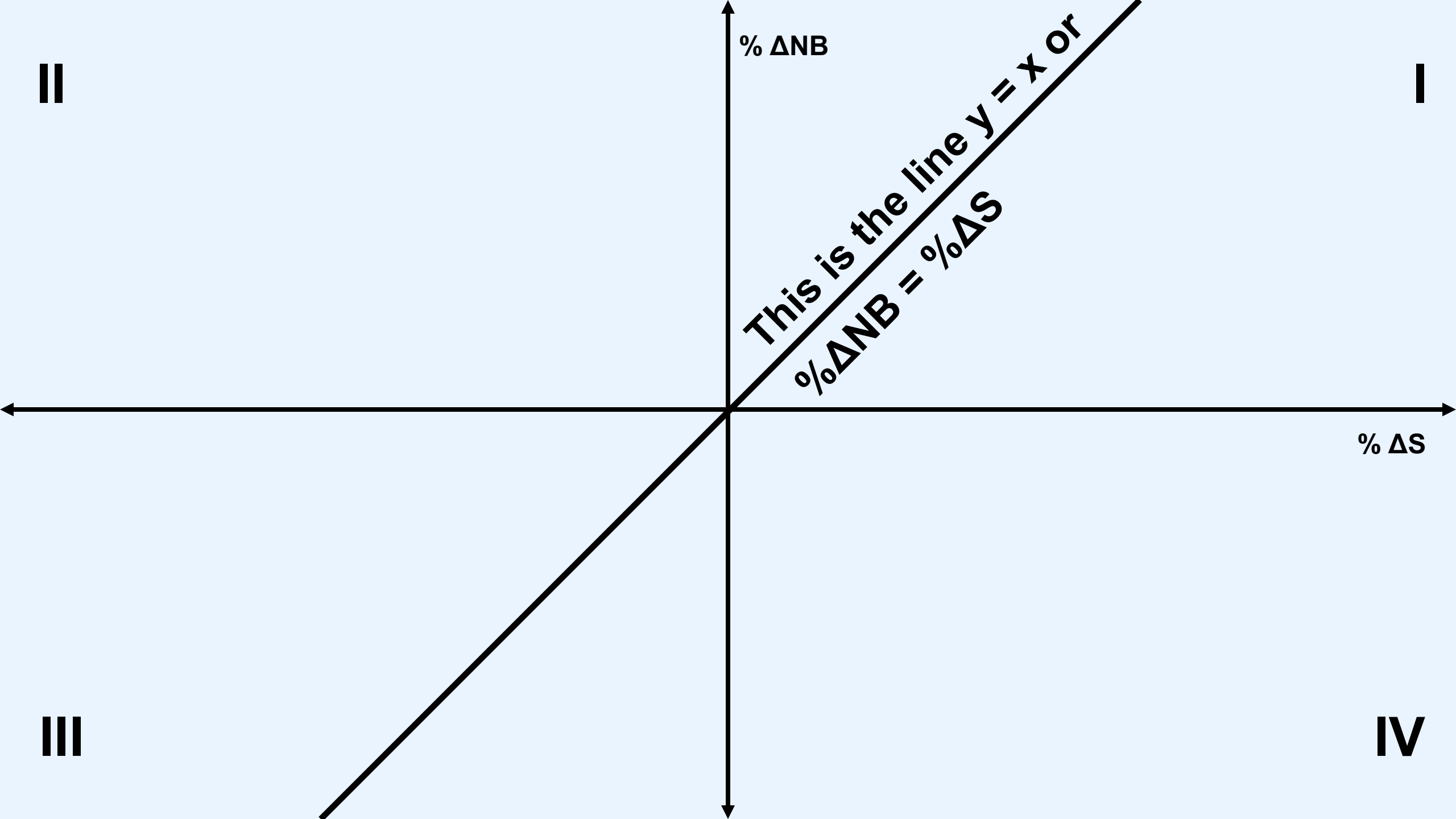


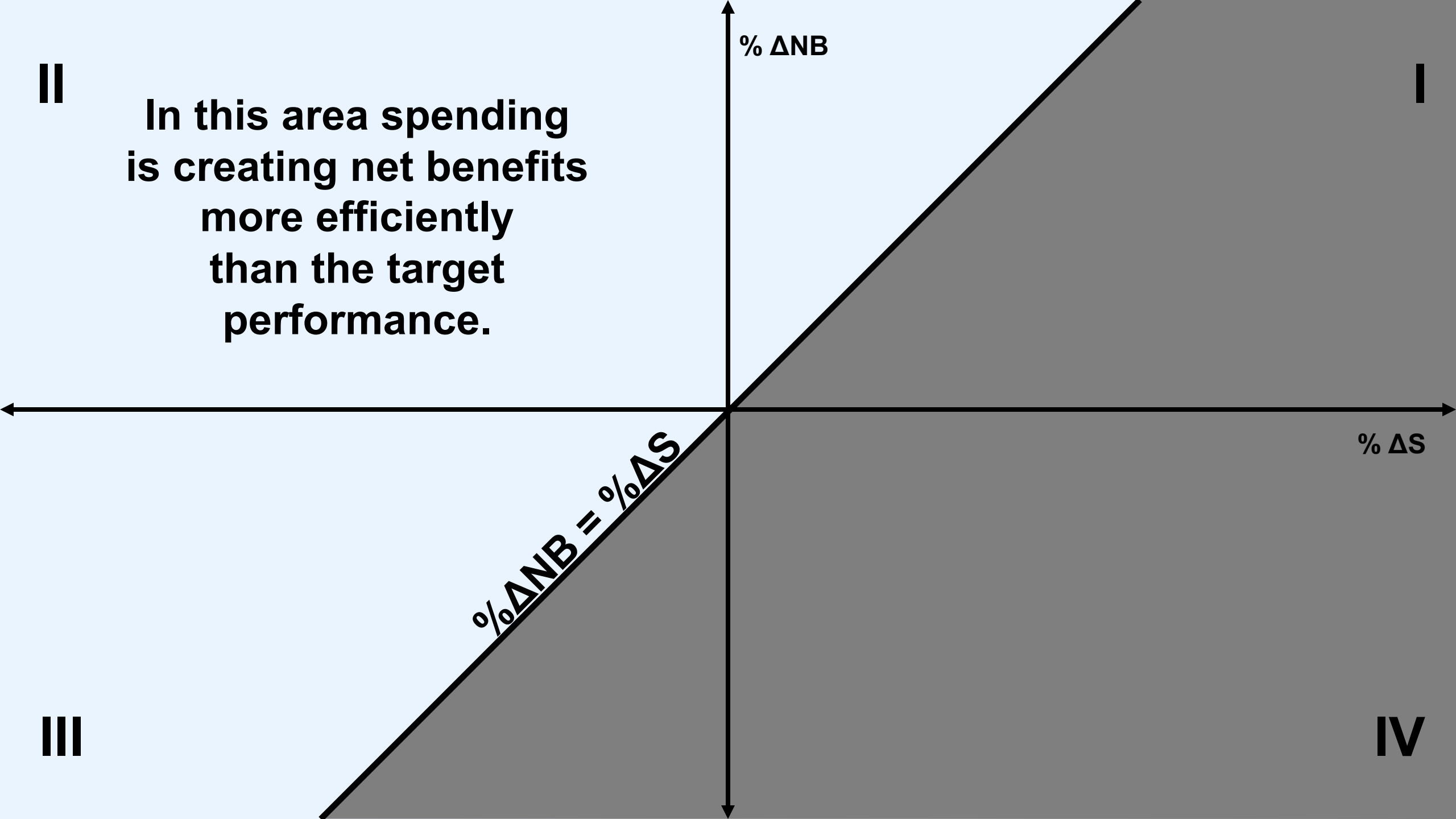

% Δ Net Benefits
I. Spend More; Get More
% ΔSpend

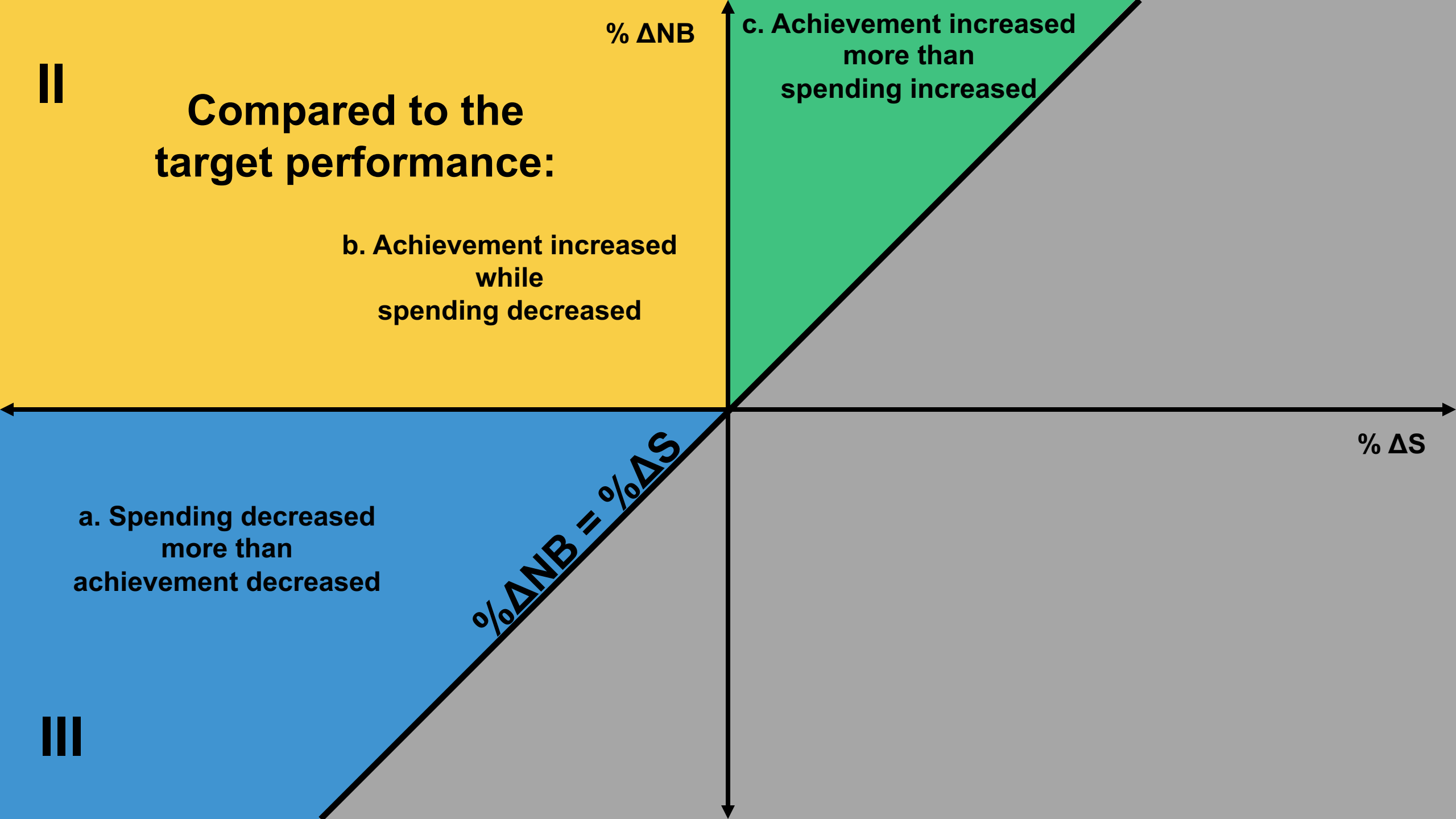

% Δ Net Benefits
II. Spend Less; Get More
I. Spend More; Get More
% ΔSpend

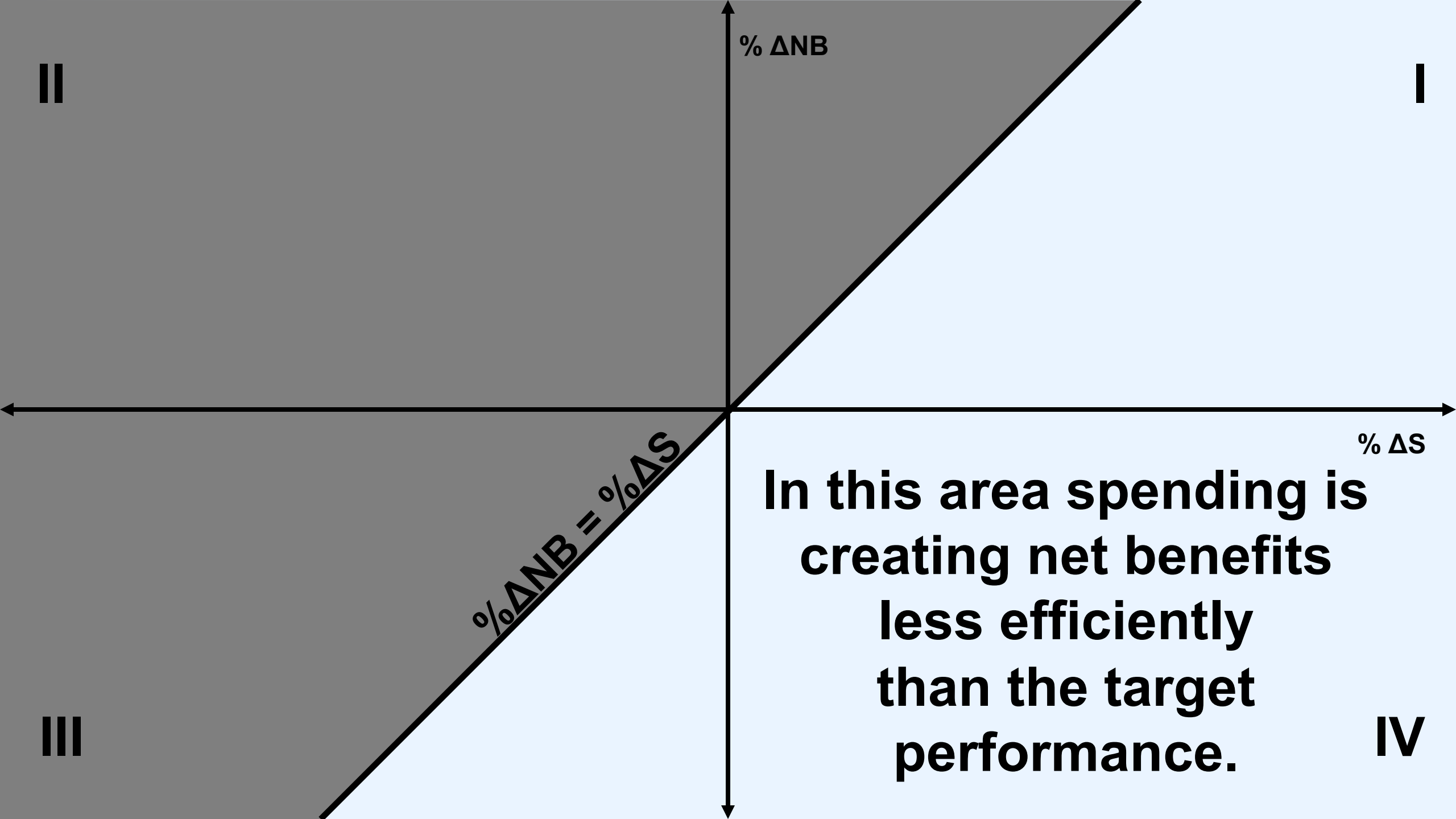

% Δ Net Benefits
II. Spend Less; Get More
I. Spend More; Get More
III. Spend Less; Get Less
% ΔSpend

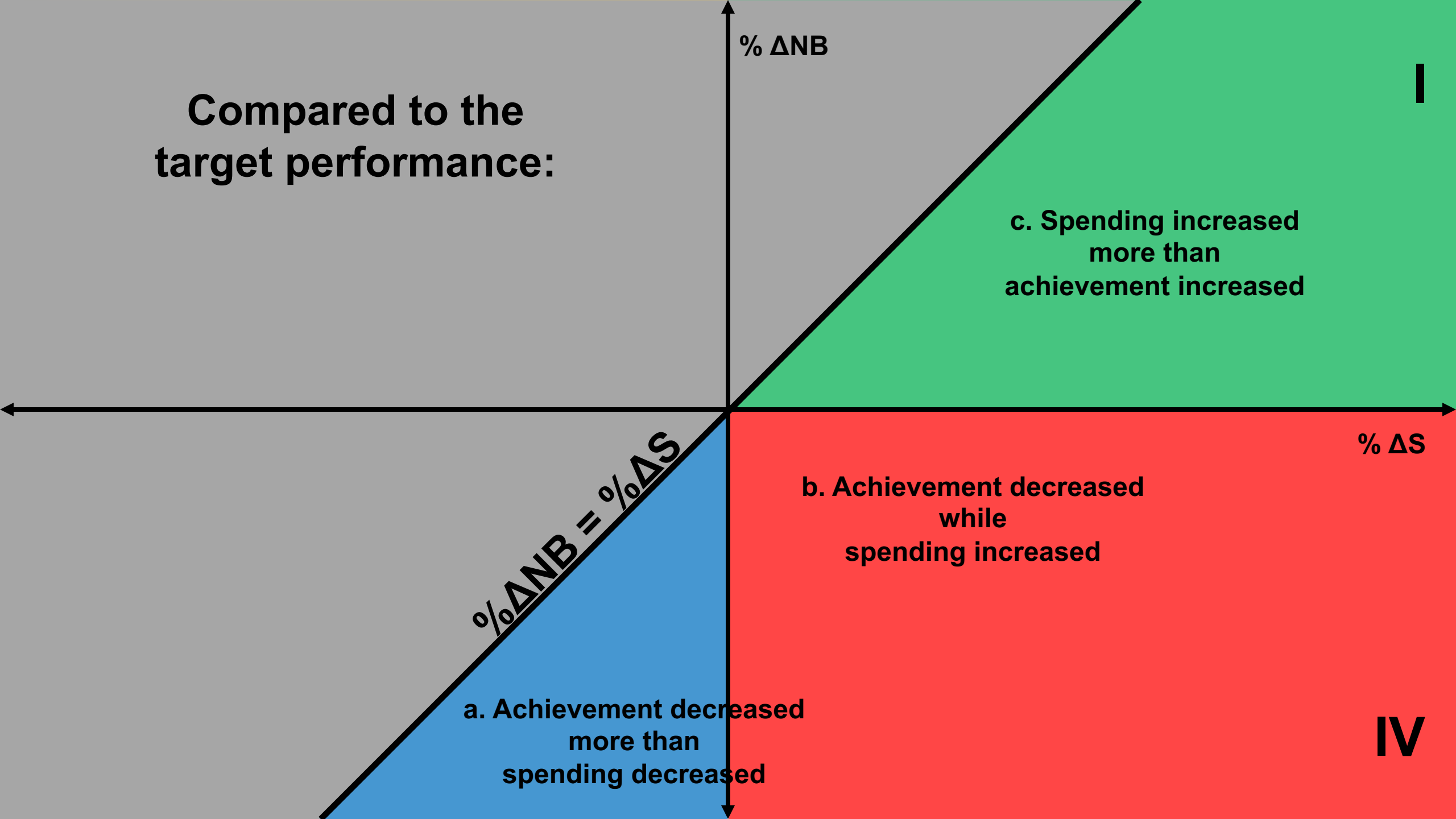

% Δ Net Benefits
II. Spend Less; Get More
I. Spend More; Get More
% ΔSpend
III. Spend Less; Get Less
IV. Spend More; Get Less

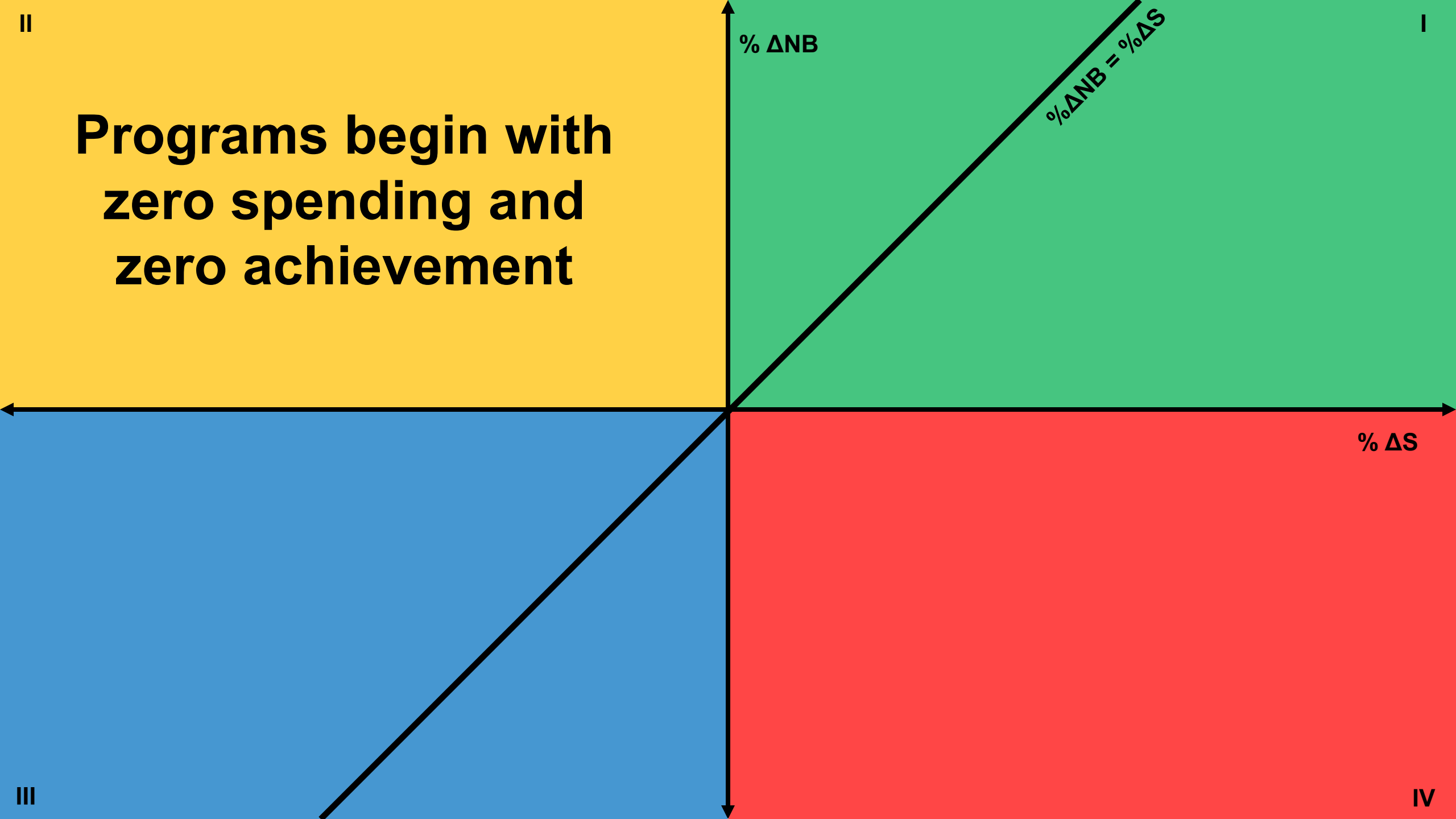

% ΔNB
II
I
This is the line y = x or
%ΔNB = %ΔS
% ΔS
III
IV

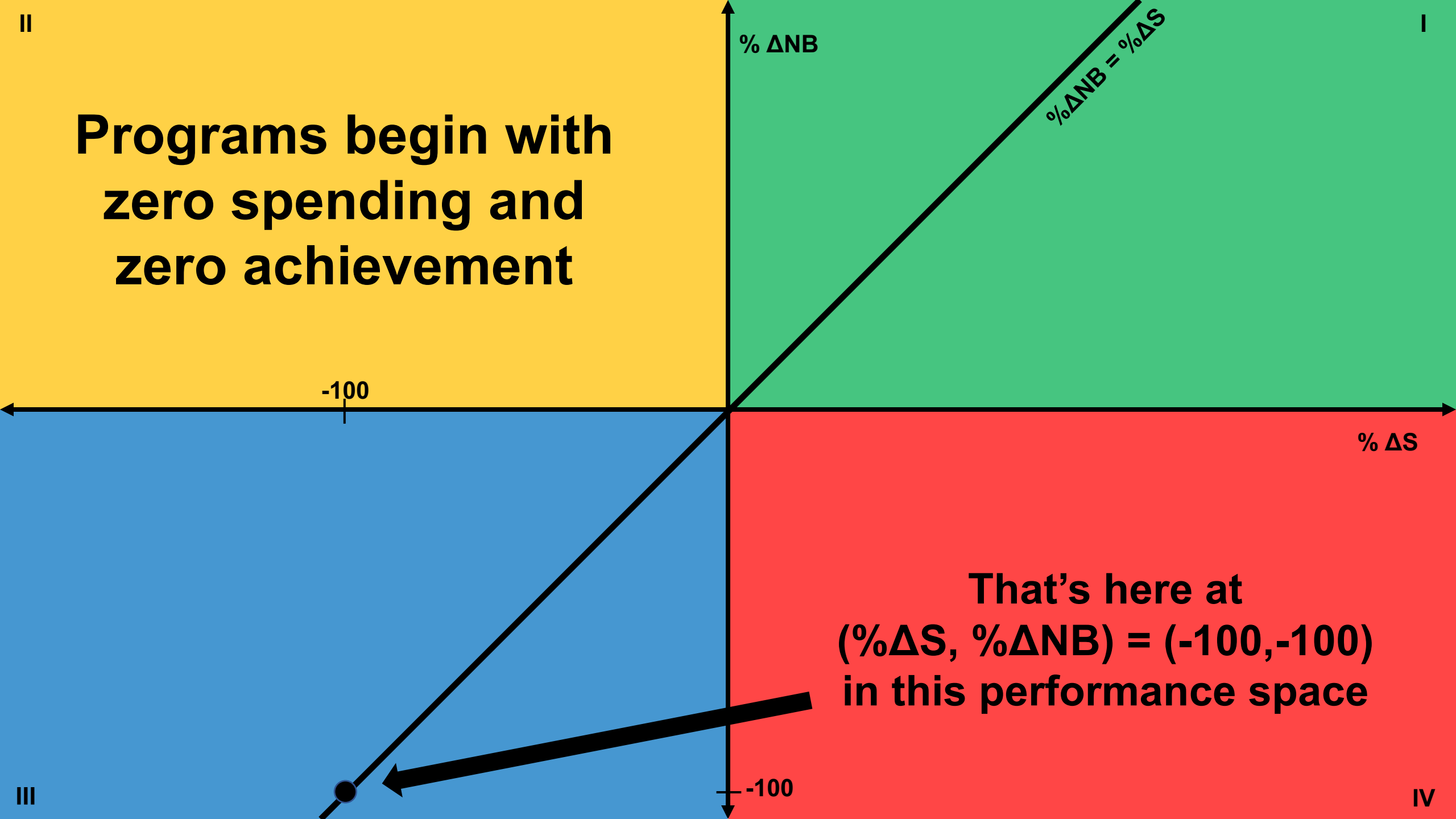

II
In this area spending is creating net benefits more efficiently than the target performance.
% ΔNB
I
% ΔS
%ΔNB = %ΔS
III
IV

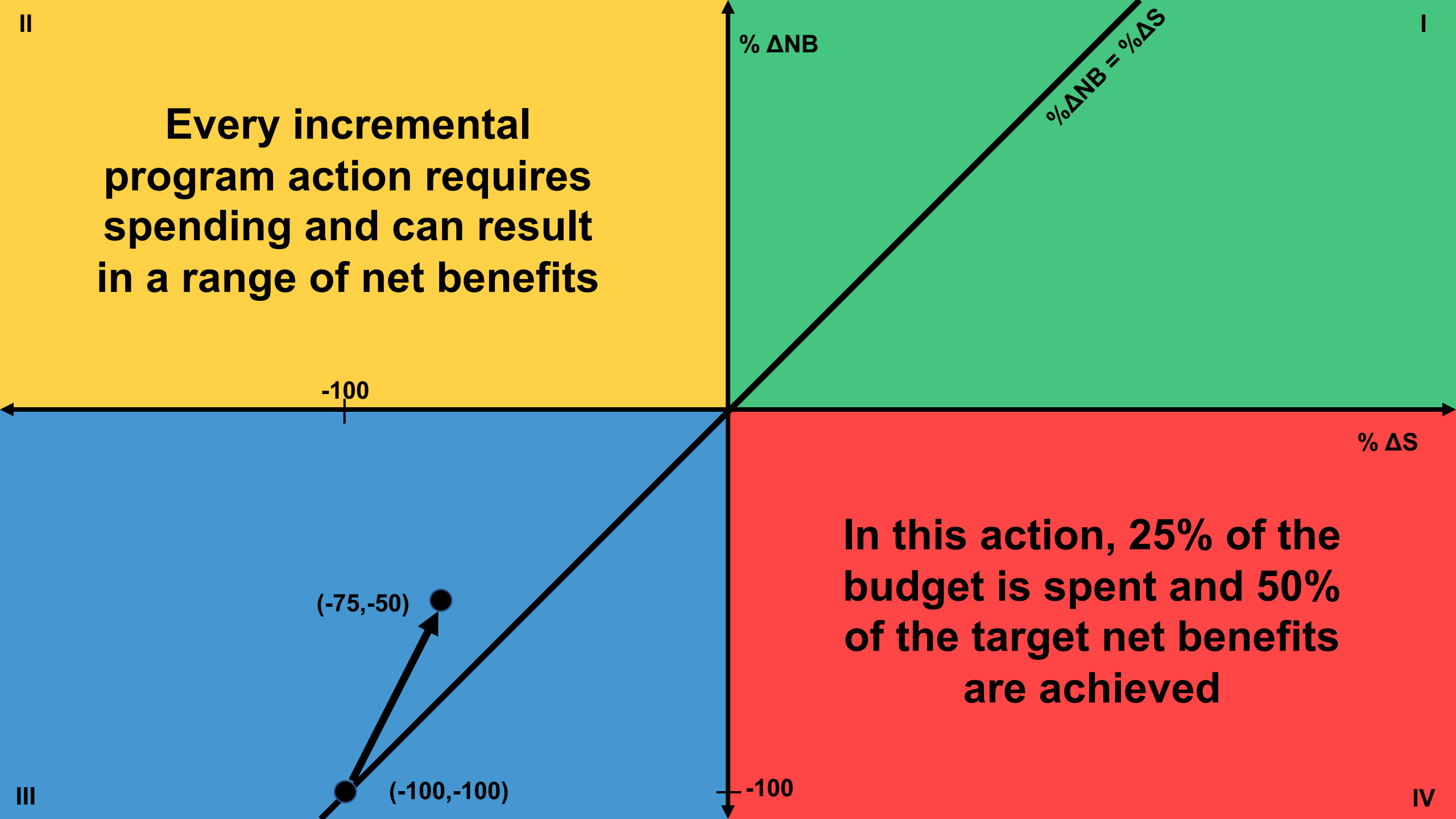

% ΔNB
II
Compared to the target performance:
b. Achievement increased while spending decreased
c. Achievement increased more than spending increased
% ΔS
%ΔNB = %ΔS
a. Spending decreased more than achievement decreased
III

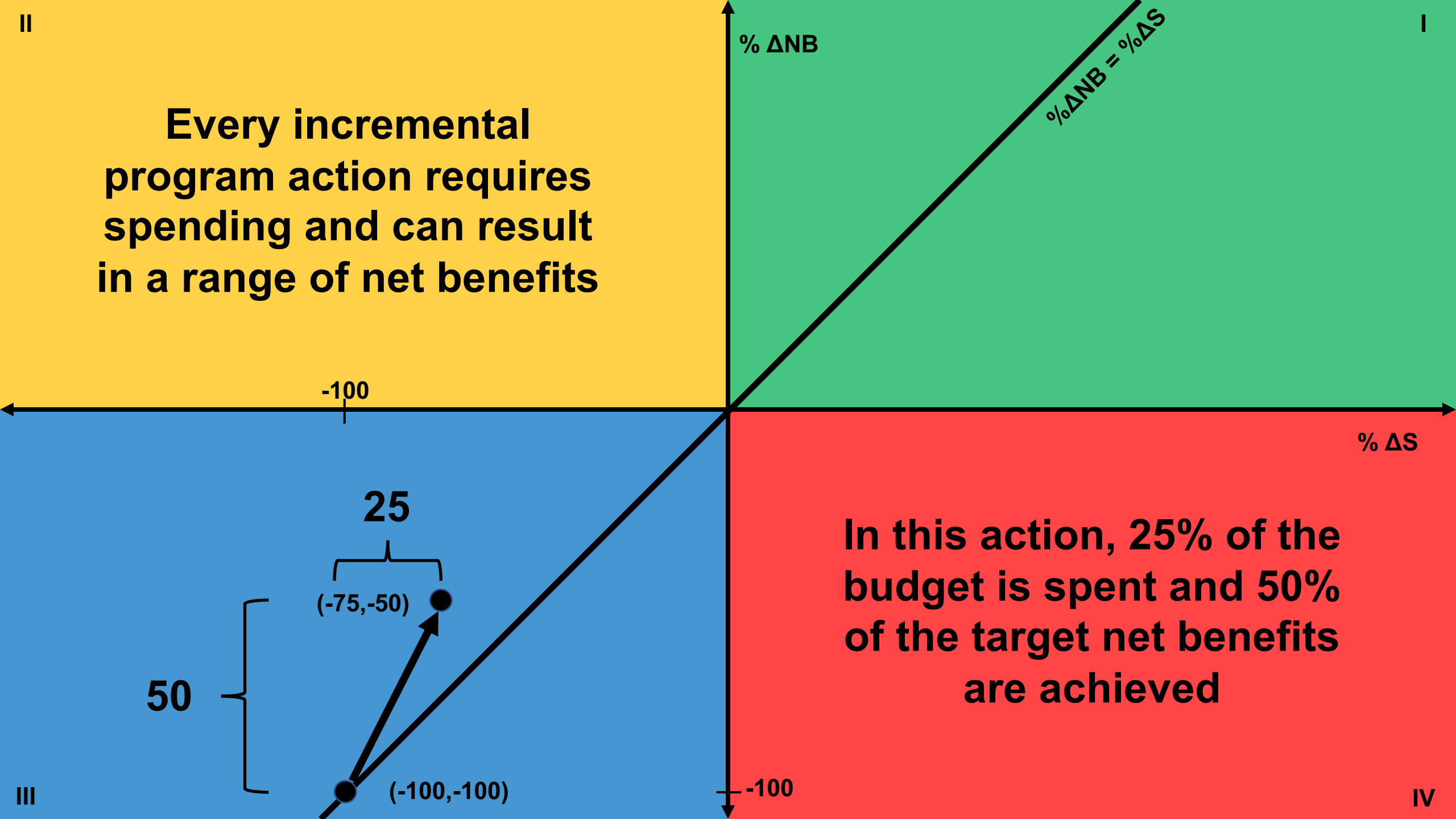

% ΔNB
% ΔS
%ΔNB = %ΔS
II
I
III
IV
In this area spending is creating net benefits less efficiently than the target performance.

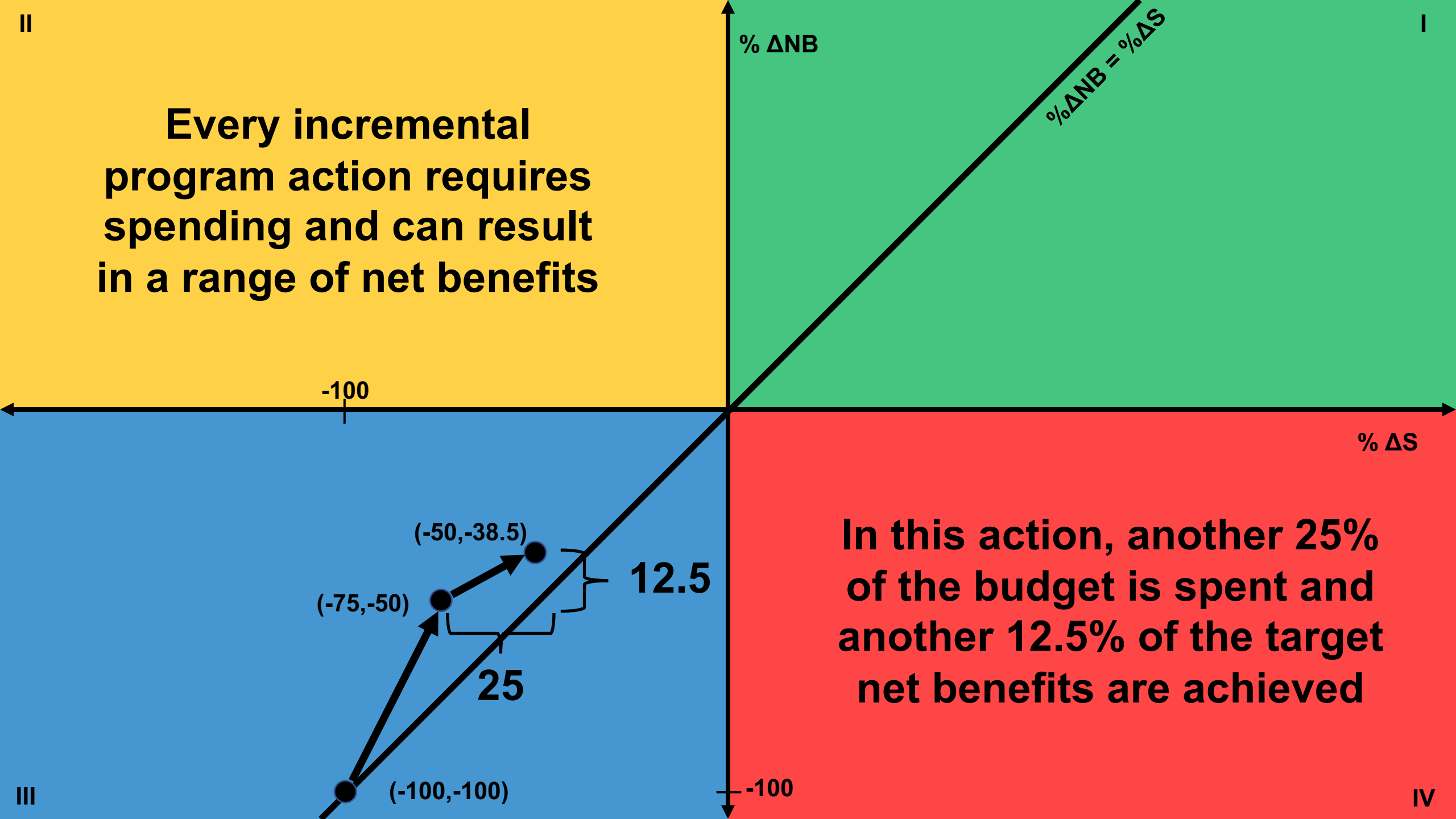

Compared to the target performance:
% ΔNB
% ΔS
I
c. Spending increased more than achievement increased
b. Achievement decreased while spending increased
%ΔNB = %ΔS
a. Achievement decreased more than spending decreased
IV

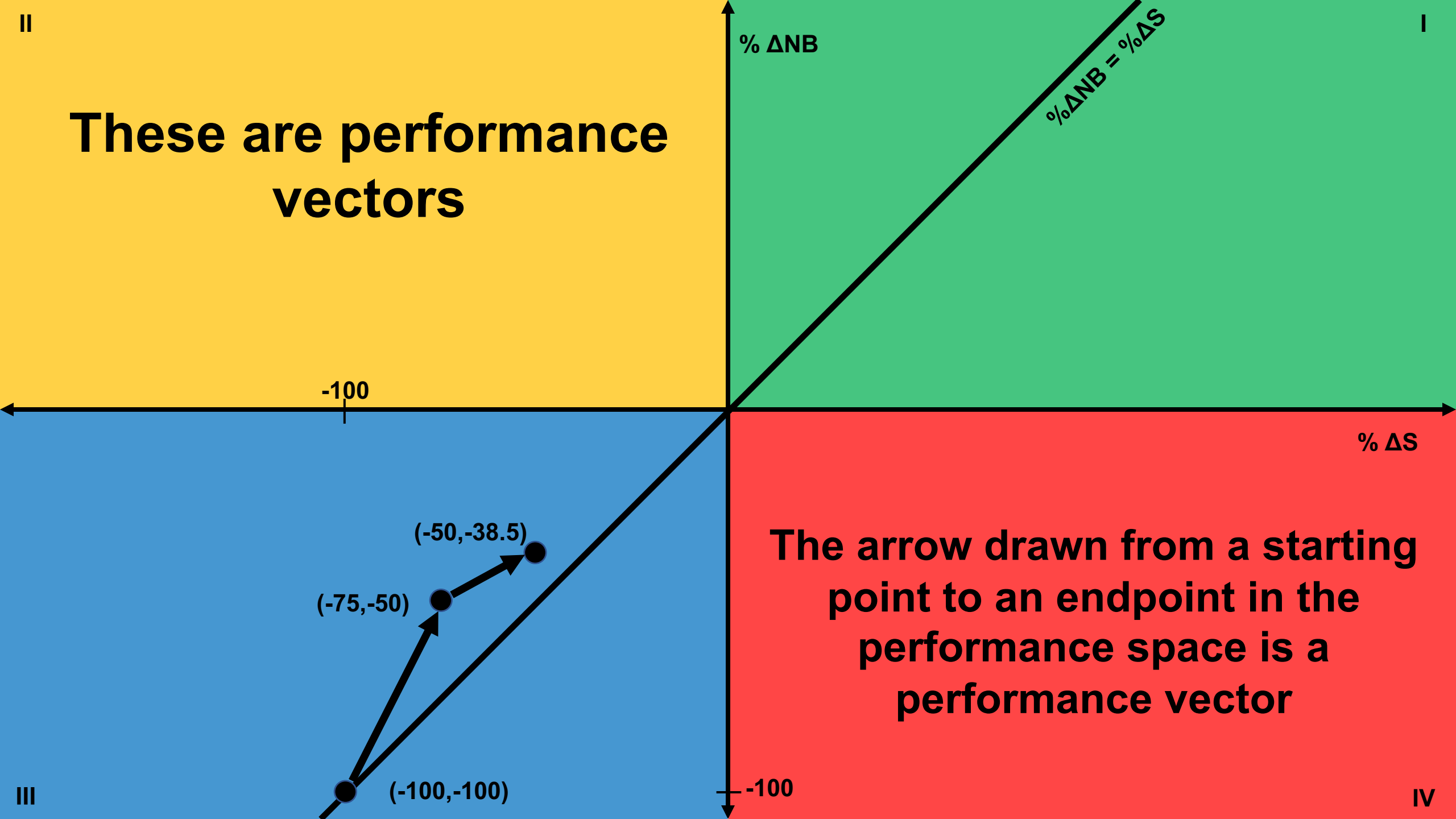

II
I
% ΔNB
%ΔNB = %ΔS
Programs begin with zero spending and zero achievement
% ΔS
III
IV


II
I
% ΔNB
%ΔNB = %ΔS
Programs begin with zero spending and zero achievement
-100
% ΔS
That's here at (%ΔS, %ΔNB) = (-100,-100) in this performance space
III
-100
IV


II
I
% ΔNB
%ΔNB = %ΔS
Every incremental program action requires spending and can result in a range of net benefits
-100
% ΔS
In this action, 25% of the budget is spent and 50% of the target net benefits are achieved
(-75,-50)
(-100,-100)
III
-100
IV

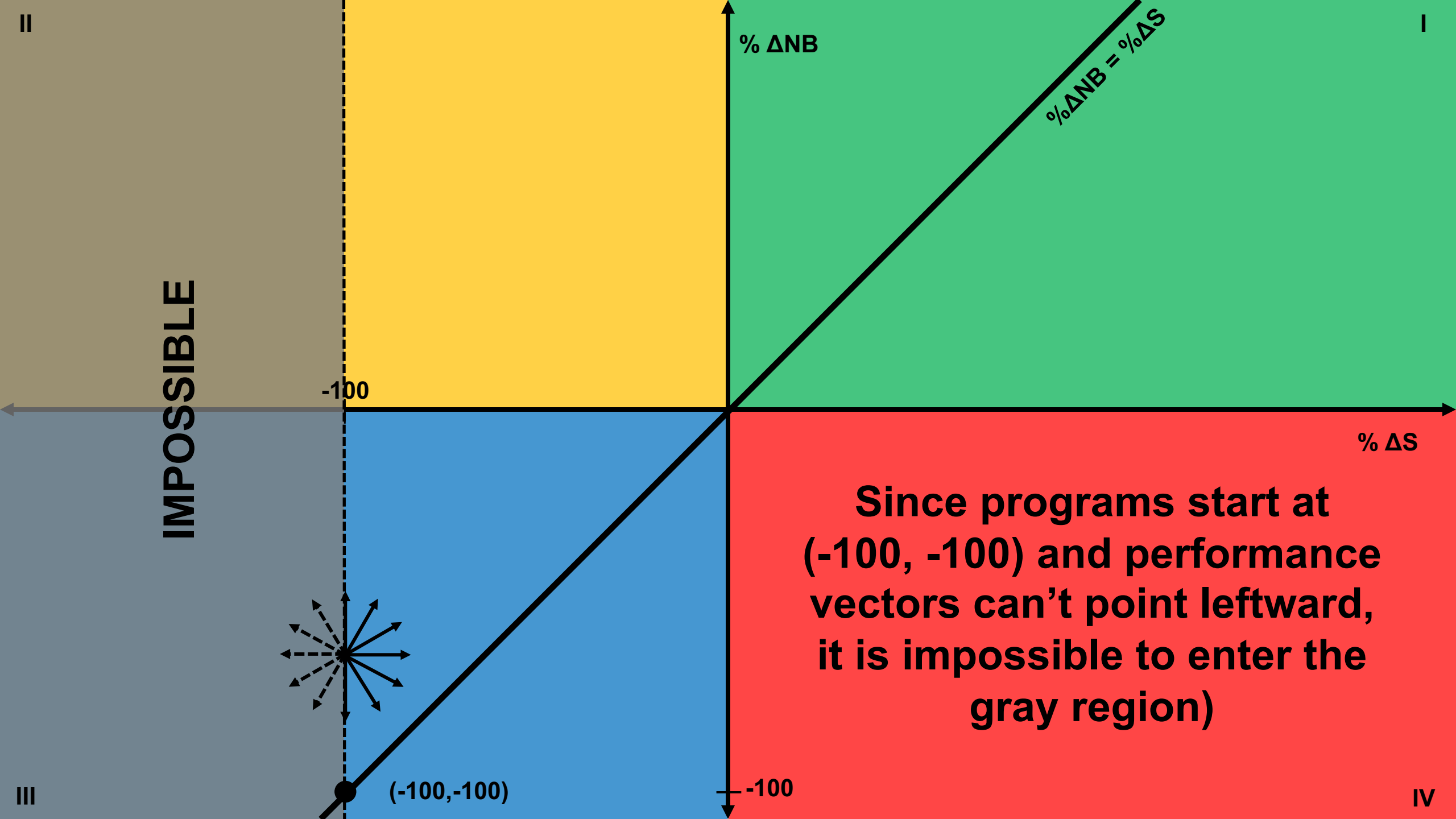

II
I
% ΔNB
%ΔNB = %ΔS
Every incremental program action requires spending and can result in a range of net benefits
-100
% ΔS
25
(-75,-50)
50
In this action, 25% of the budget is spent and 50% of the target net benefits are achieved
III
(-100,-100)
-100
IV

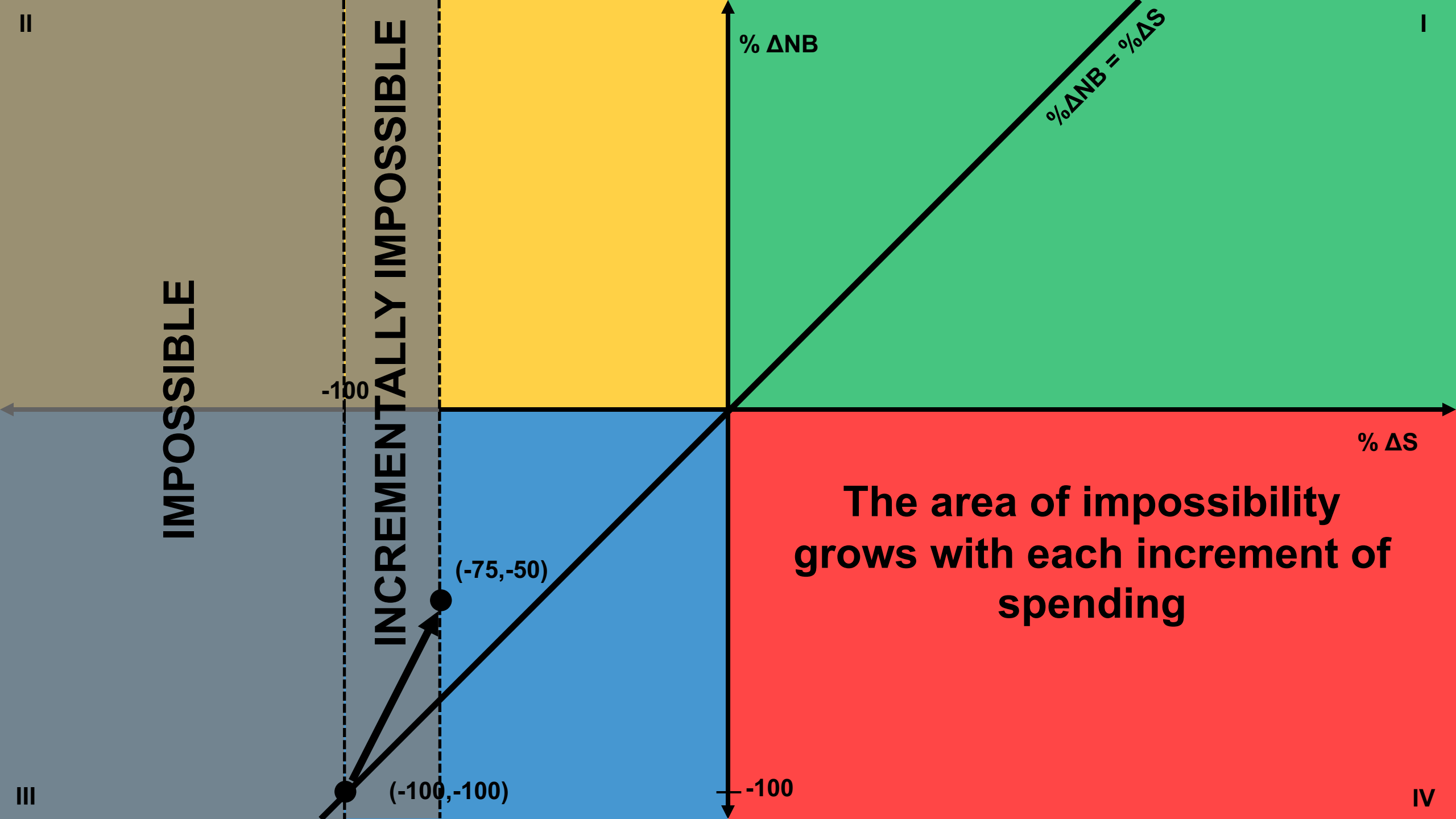

II
I
% ΔNB
%ΔNB = %ΔS
Every incremental program action requires spending and can result in a range of net benefits
-100
% ΔS
(-50,-38.5)
12.5
(-75,-50)
25
In this action, another 25% of the budget is spent and another 12.5% of the target net benefits are achieved
III
(-100,-100)
-100
IV

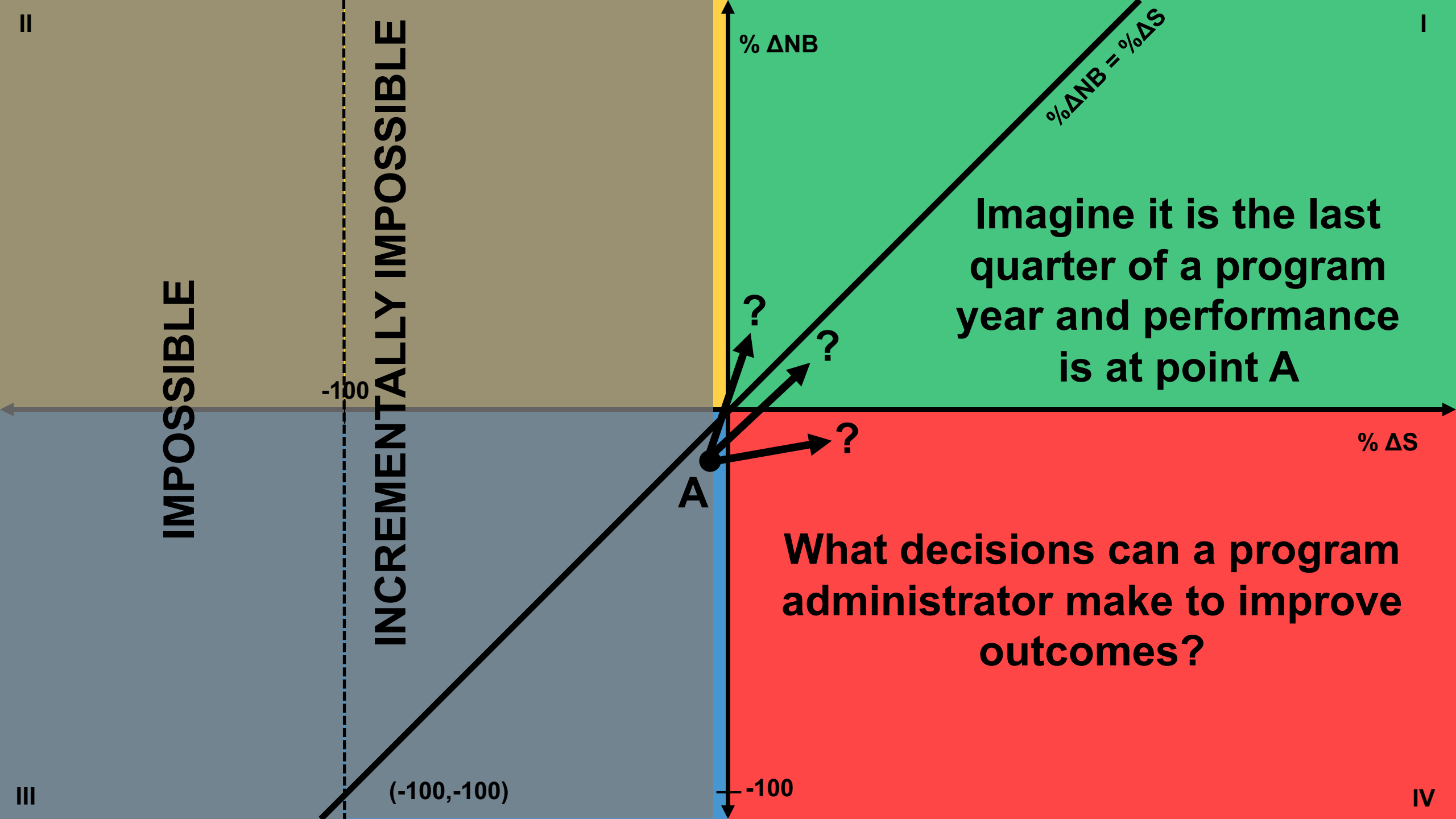


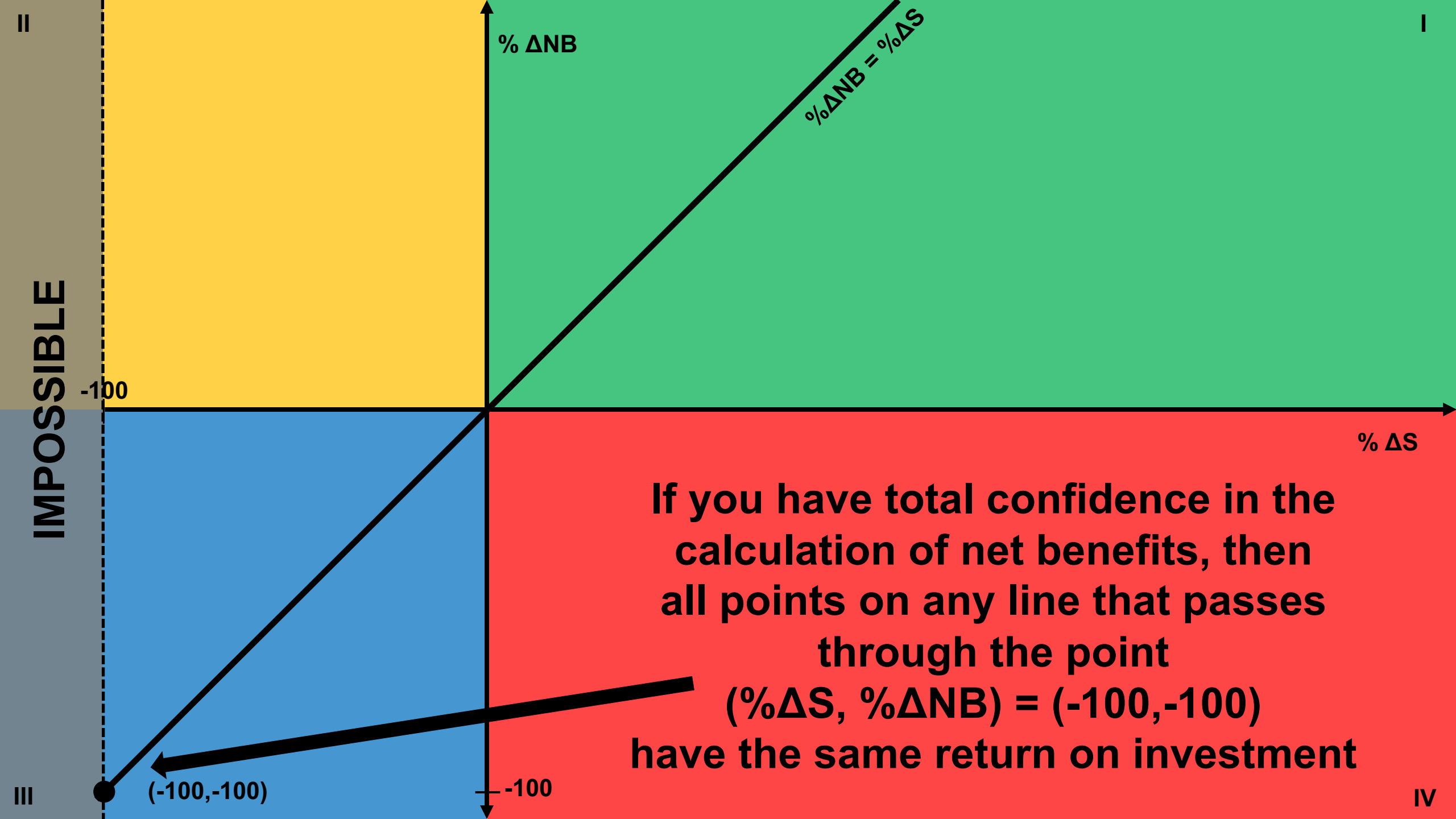
These are performance vectors

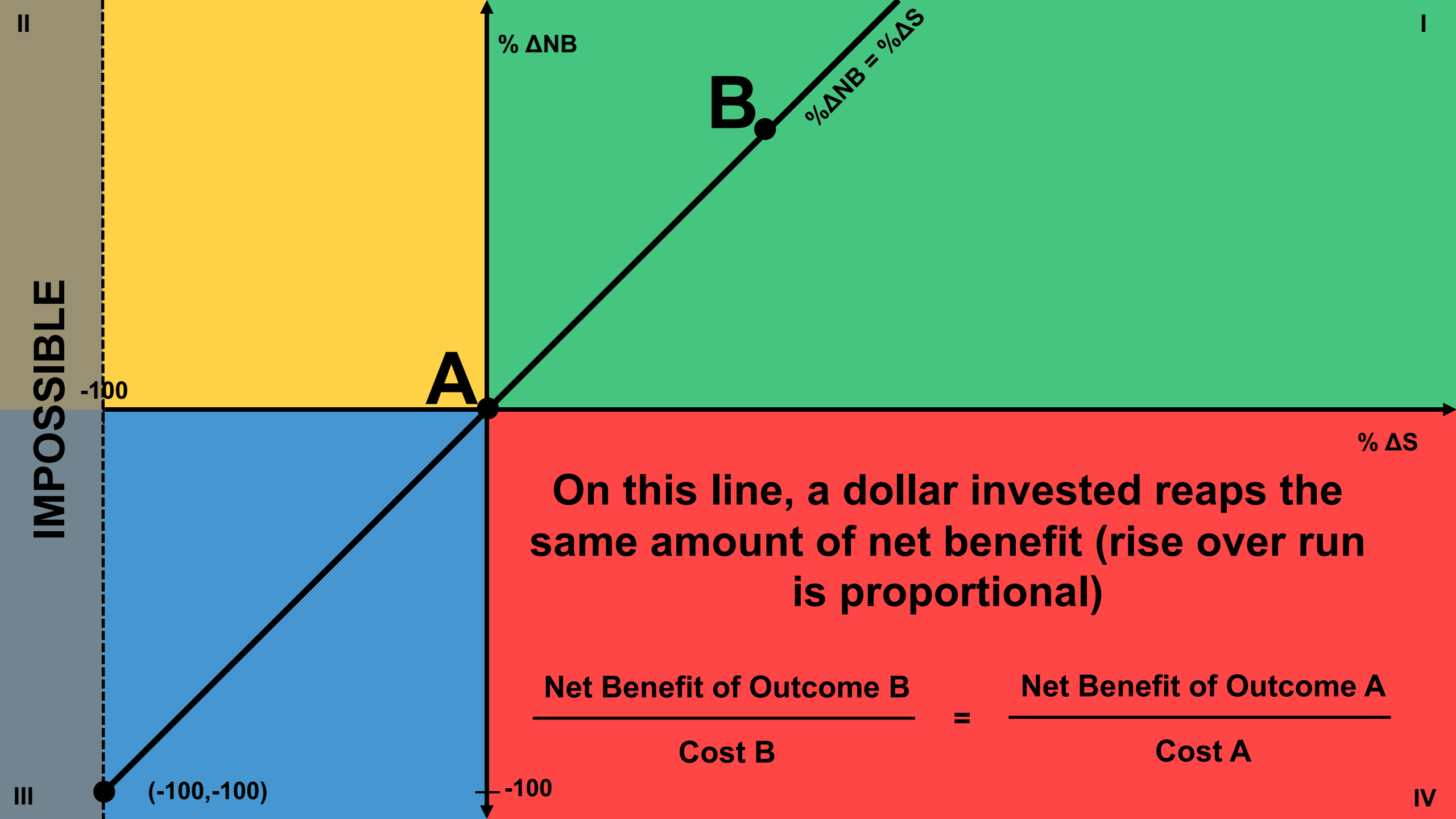
The arrow drawn from a starting point to an endpoint in the performance space is a performance vector

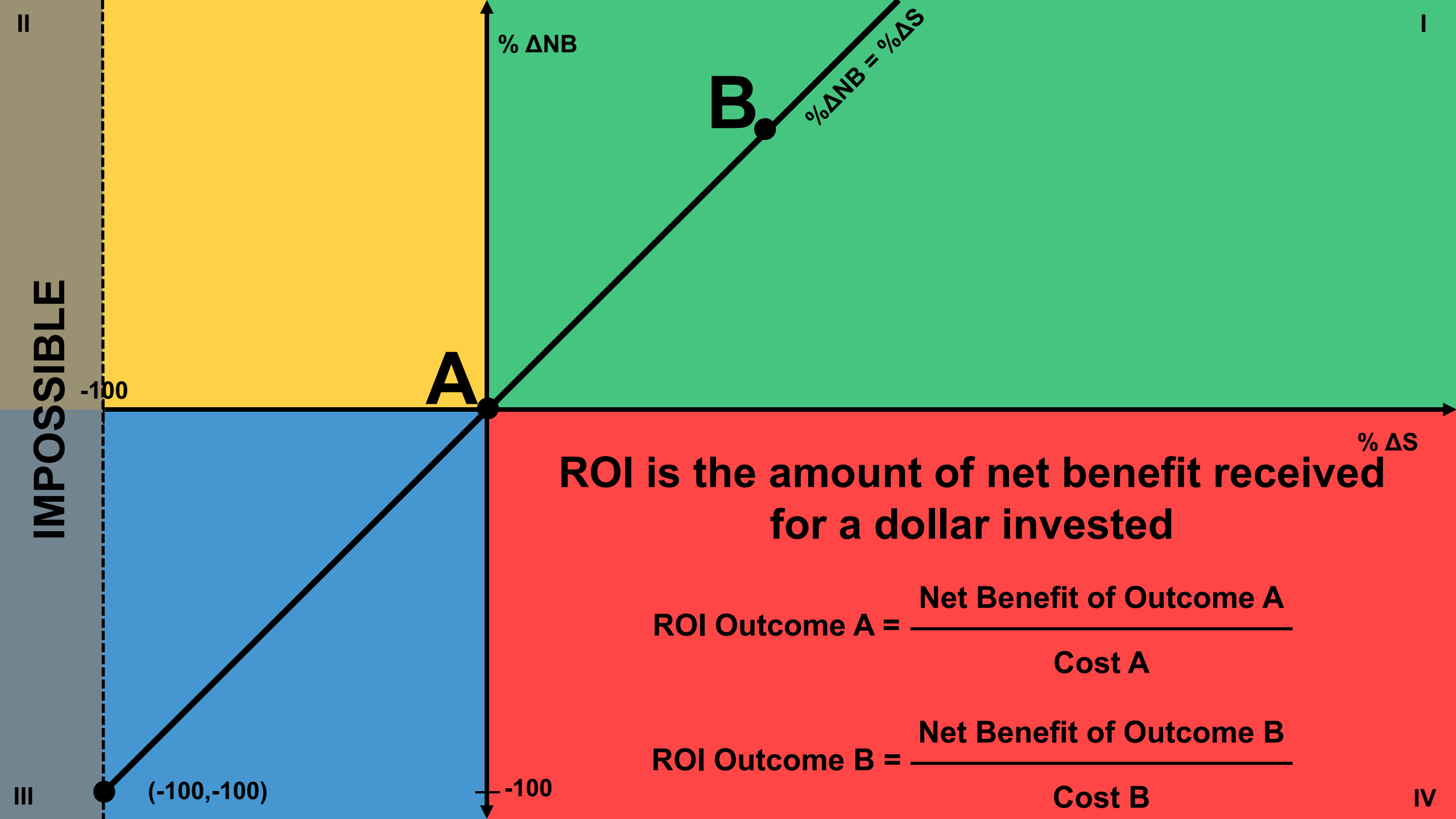

II
I
% ΔNB
%ΔNB = %ΔS
IMPOSSIBLE
-100
% ΔS
Since programs start at (-100, -100) and performance vectors can't point leftward, it is impossible to enter the gray region)
III
(-100,-100)
-100
IV

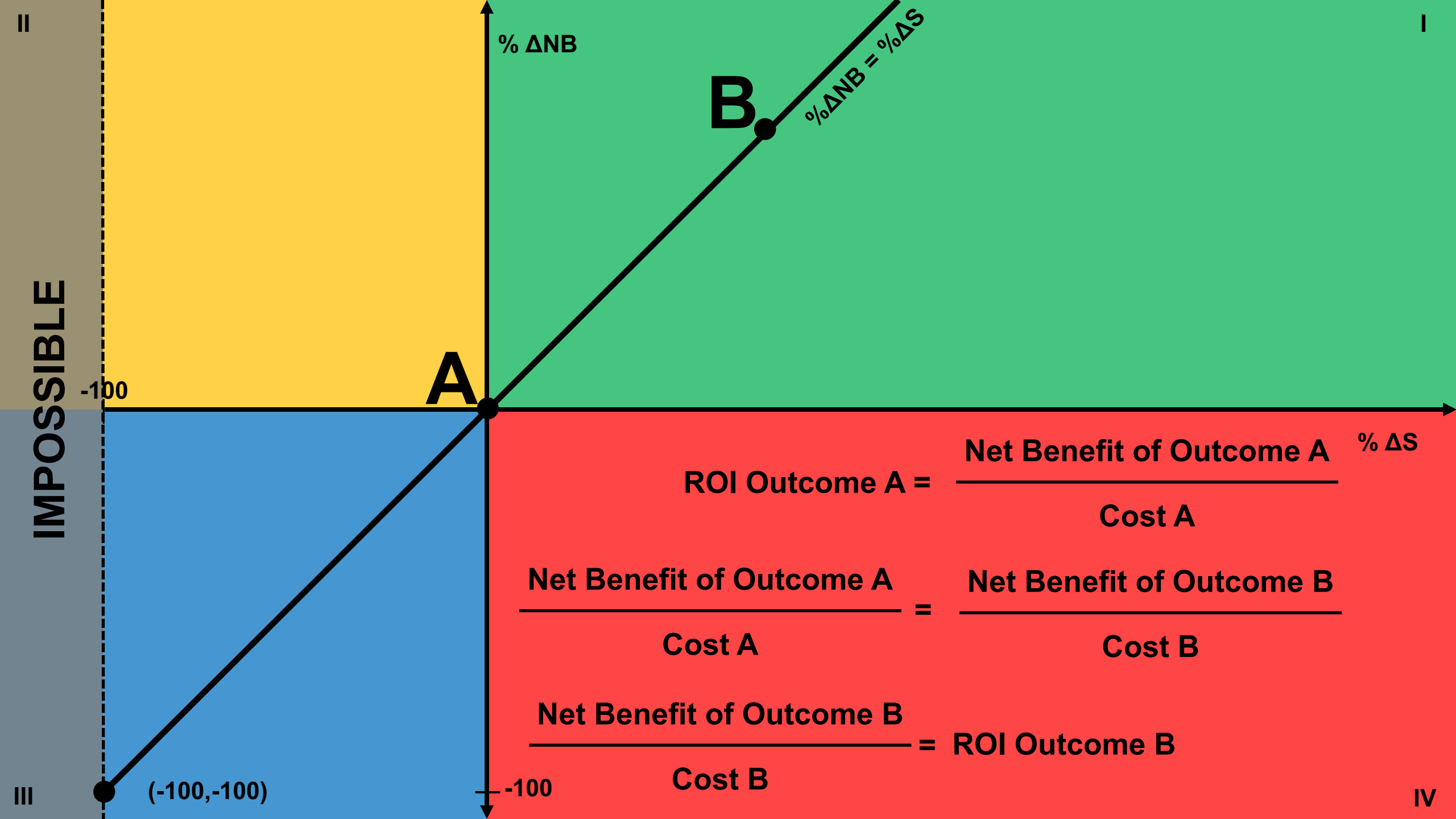

II
I
III
IV
% ΔNB
%ΔNB = %ΔS
% ΔS
IMPOSSIBLE
INCREMENTALLY IMPOSSIBLE
-100
-100
(-75,-50)
(-100,-100)
The area of impossibility grows with each increment of spending

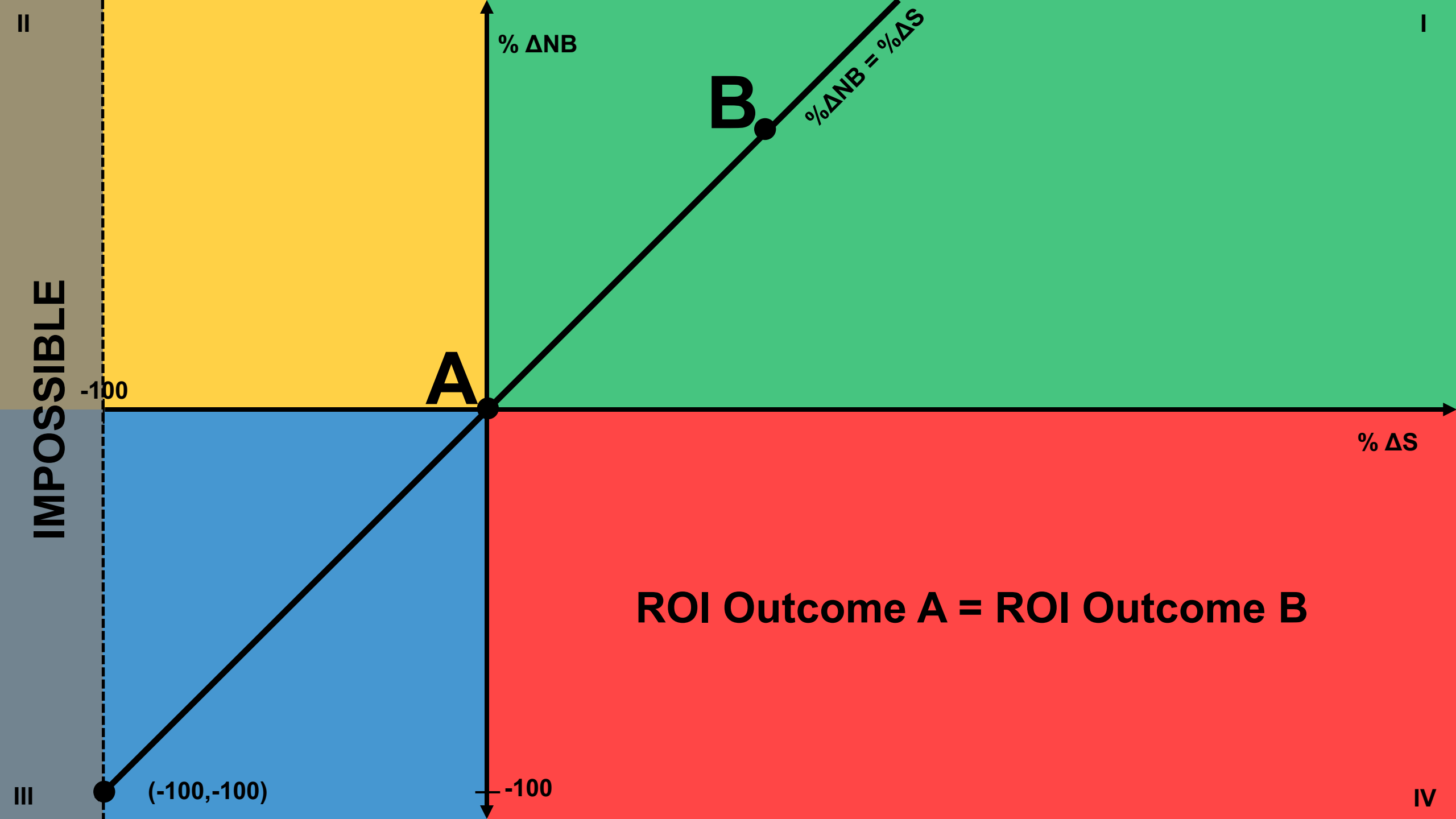

II
I
III
IV
% ΔNB
% ΔS
%ΔNB = %ΔS
IMPOSSIBLE
INCREMENTALLY IMPOSSIBLE
-100
-100
(-100,-100)
A
?
?
?
Imagine it is the last quarter of a program year and performance is at point A
What decisions can a program administrator make to improve outcomes?

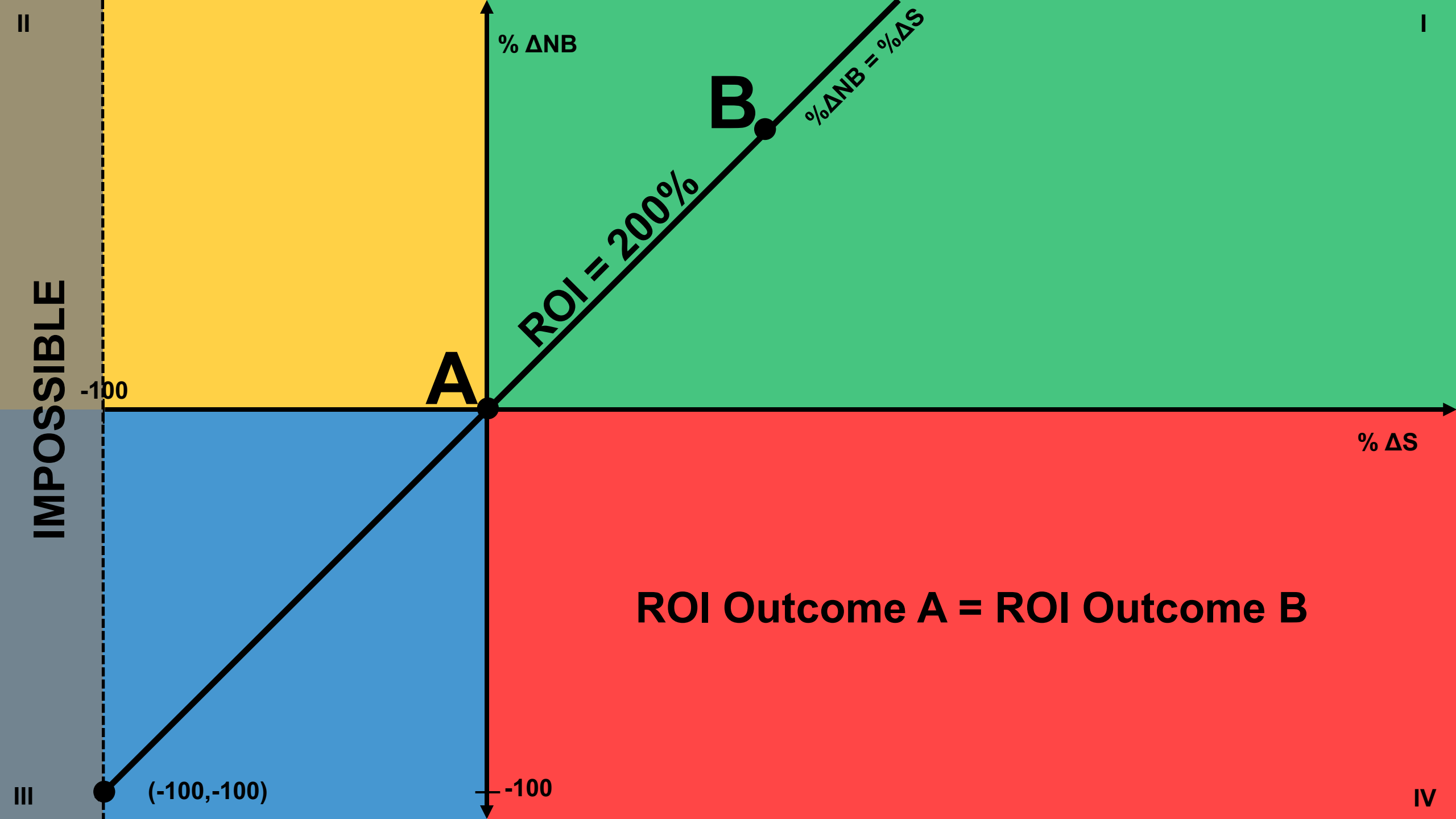

II
I
% ΔNB
%ΔNB = %ΔS
IMPOSSIBLE
-100
% ΔS
If you have total confidence in the calculation of net benefits, then all points on any line that passes through the point (%ΔS, %ΔNB) = (-100,-100) have the same return on investment
III
(-100,-100)
-100
IV

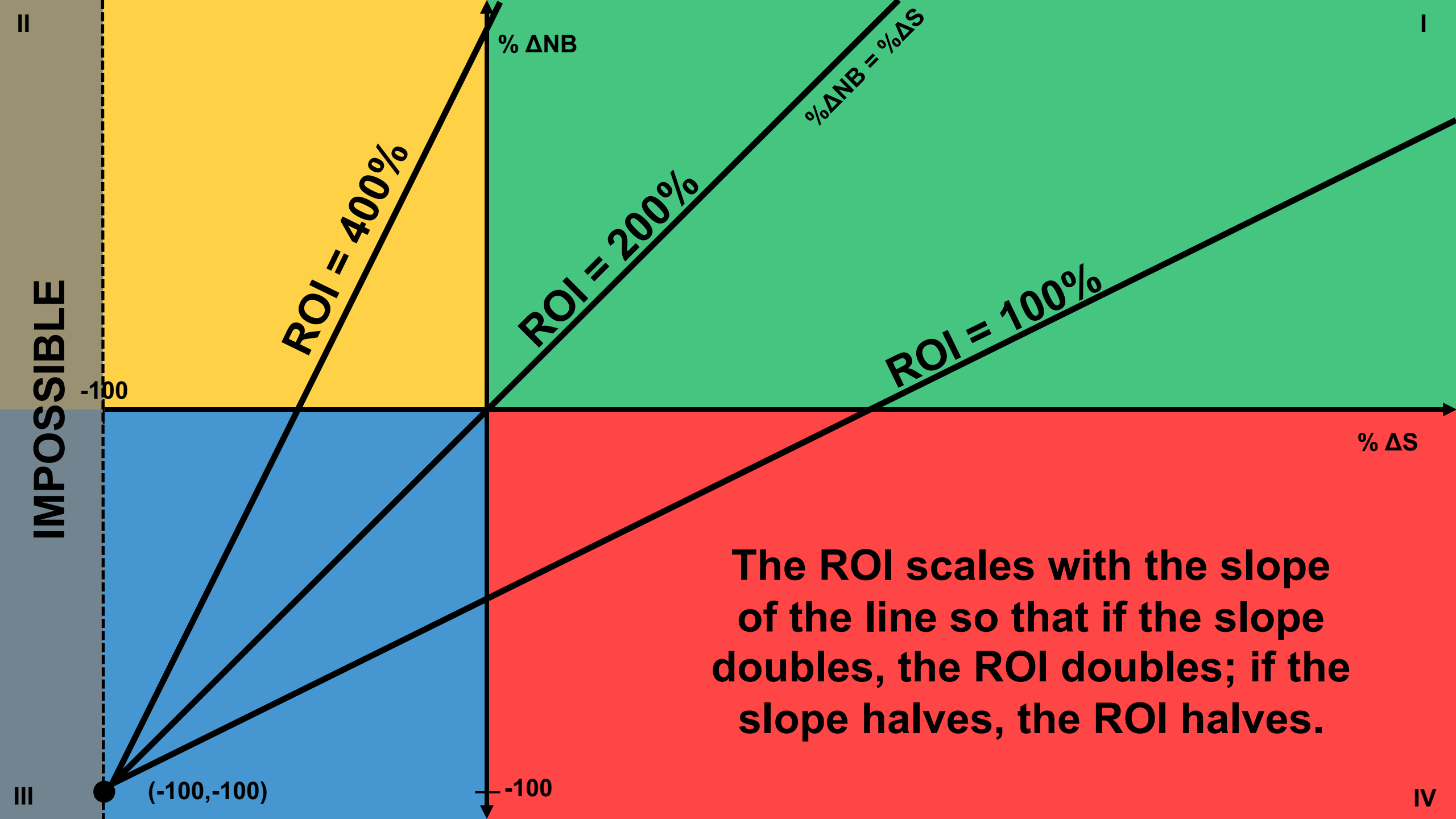

II
I
% ΔNB
B
%ΔNB = %ΔS
A
-100
IMPOSSIBLE
% ΔS
On this line, a dollar invested reaps the same amount of net benefit (rise over run is proportional)
Net Benefit of Outcome B / Cost B = Net Benefit of Outcome A / Cost A
III
(-100,-100)
-100
IV

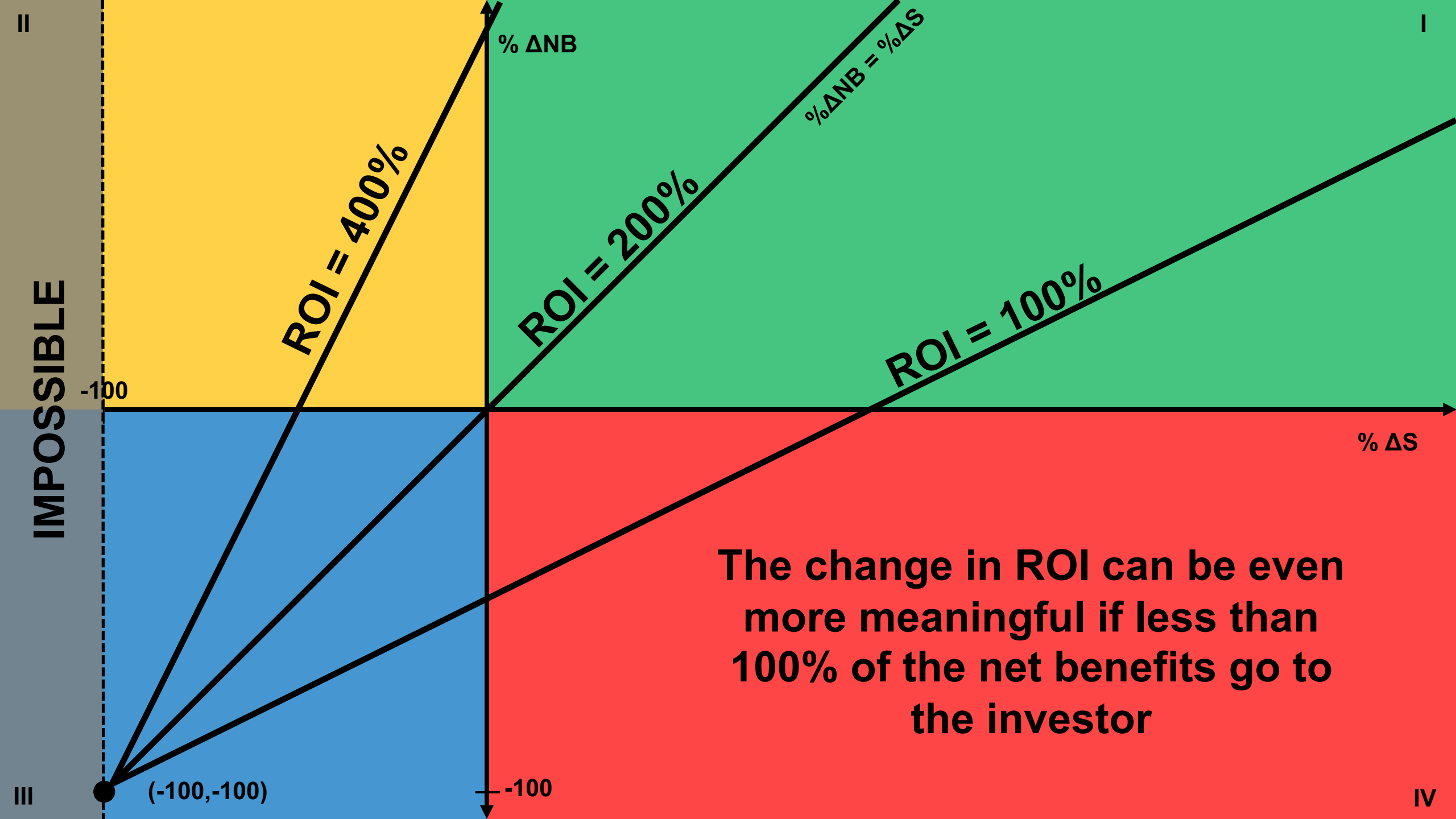

II
I
% ΔNB
B
%ΔNB = %ΔS
A
-100
IMPOSSIBLE
% ΔS
ROI is the amount of net benefit received for a dollar invested
ROI Outcome A = Net Benefit of Outcome A / Cost A
ROI Outcome B = Net Benefit of Outcome B / Cost B
III
(-100,-100)
-100
IV

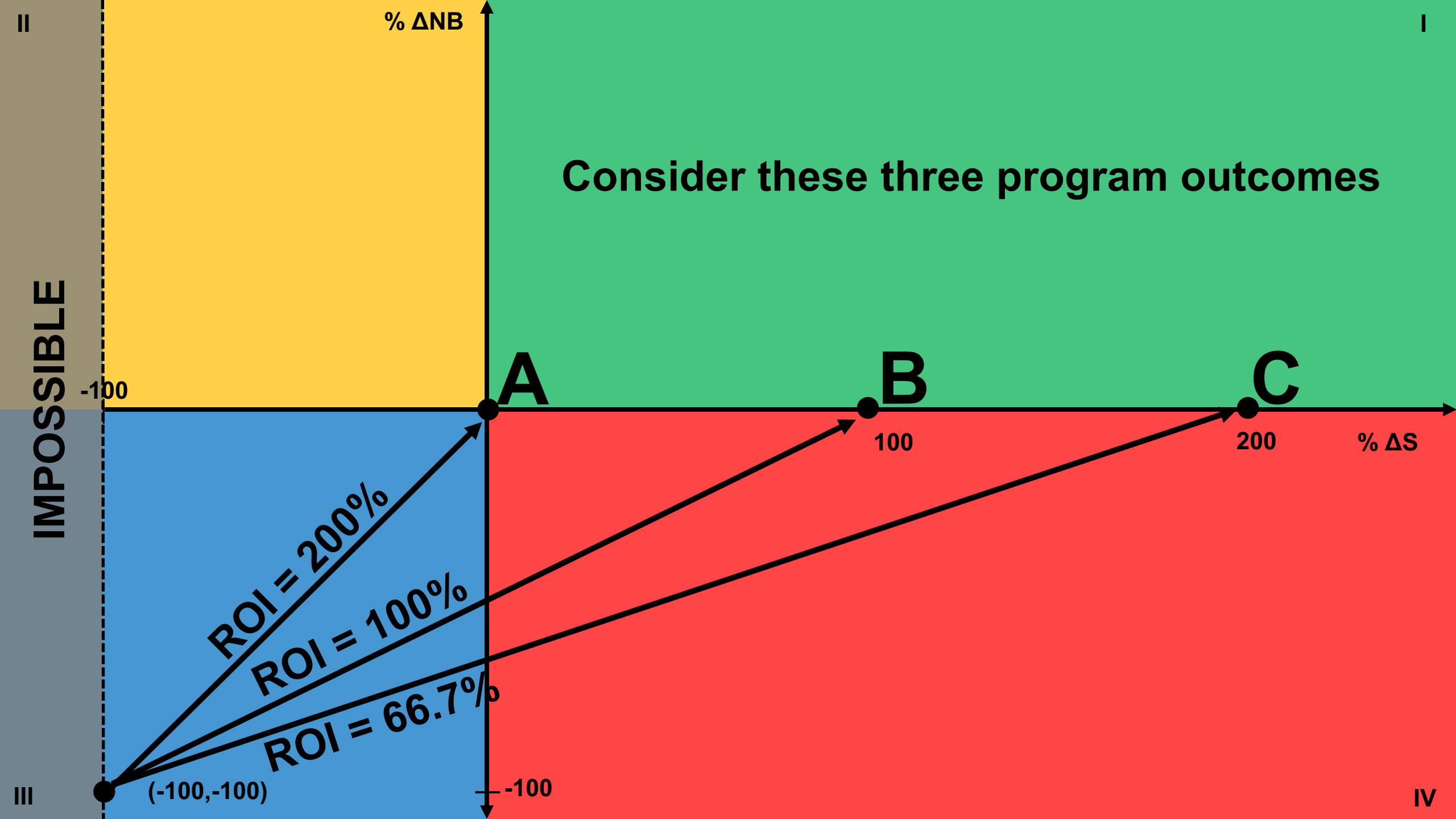

II
I
% ΔNB
B
%ΔNB = %ΔS
A
IMPOSSIBLE
-100
% ΔS
ROI Outcome A = Net Benefit of Outcome A / Cost A
Net Benefit of Outcome A / Cost A = Net Benefit of Outcome B / Cost B
Net Benefit of Outcome B / Cost B = ROI Outcome B
III
(-100,-100)
-100
IV

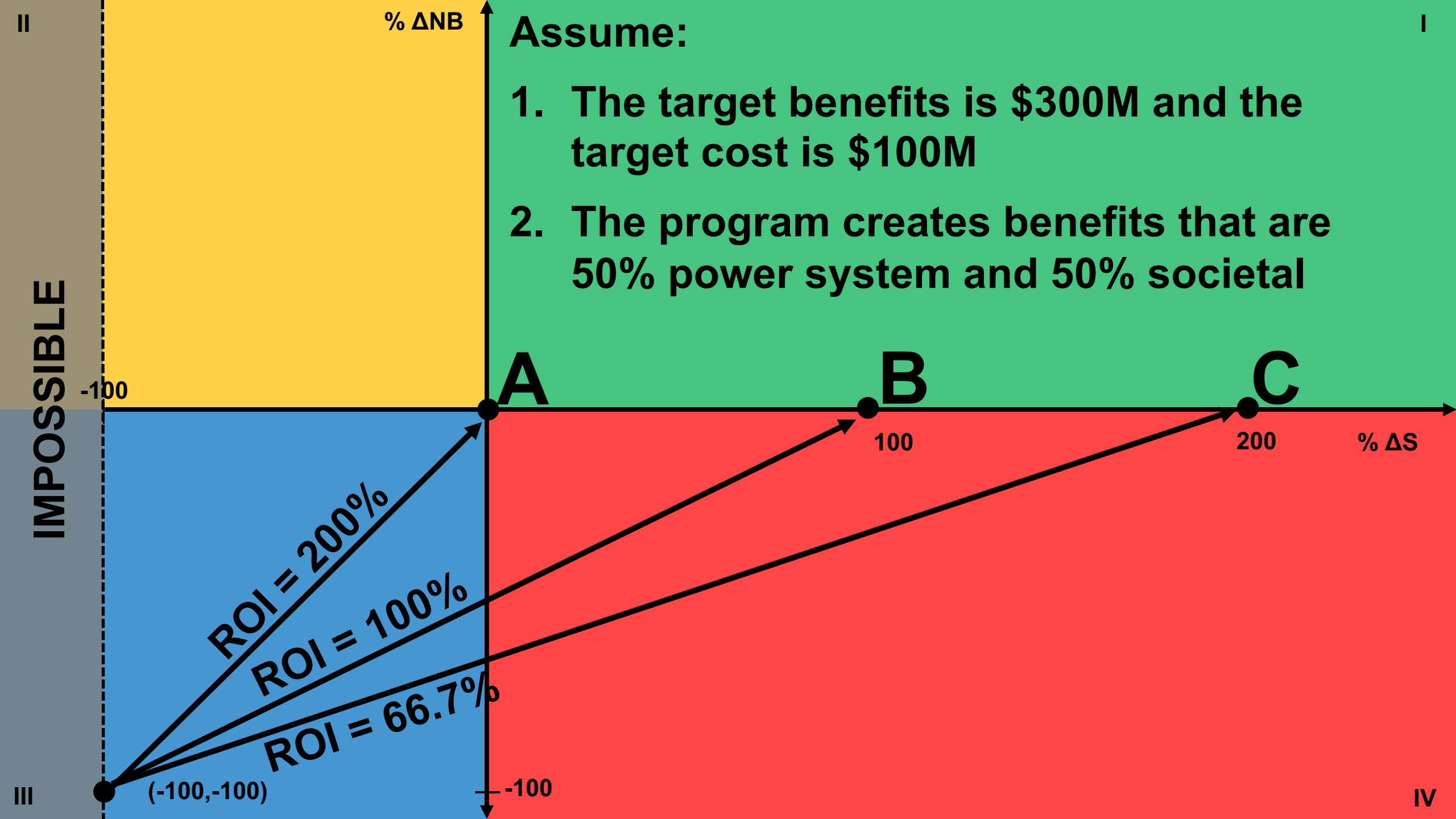

II
I
% ΔNB
B
%ΔNB = %ΔS
A
-100
IMPOSSIBLE
% ΔS
ROI Outcome A = ROI Outcome B
III
(-100,-100)
-100
IV

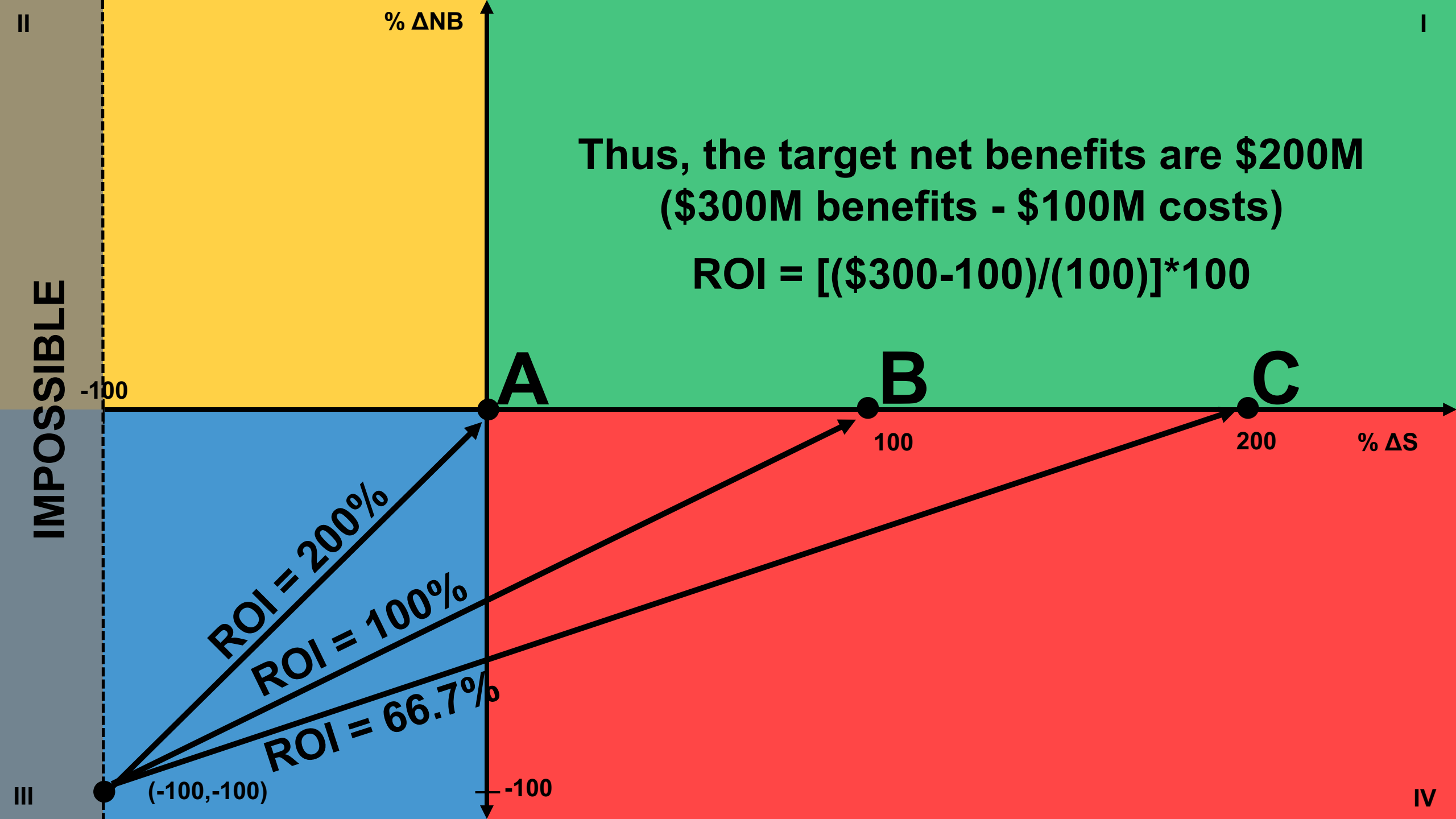

II
I
% ΔNB
B
%ΔNB = %ΔS
ROI = 200%
A
-100
IMPOSSIBLE
% ΔS
ROI Outcome A = ROI Outcome B
III
(-100,-100)
-100
IV

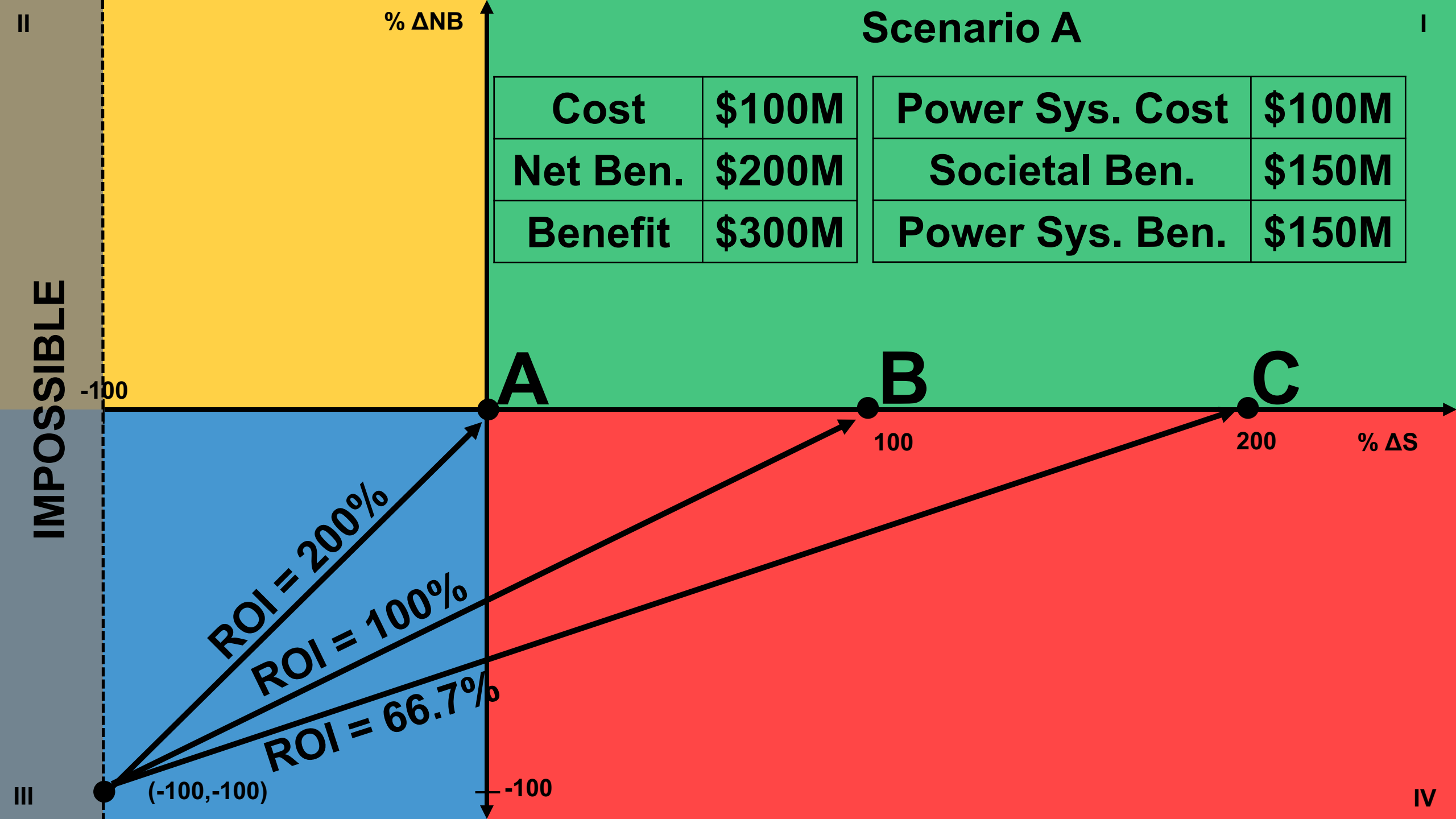

II
I
% ΔNB
%ΔNB = %ΔS
ROI = 400%
ROI = 200%
ROI = 100%
IMPOSSIBLE
-100
% ΔS
III
(-100,-100)
-100
IV
The ROI scales with the slope of the line so that if the slope doubles, the ROI doubles; if the slope halves, the ROI halves.

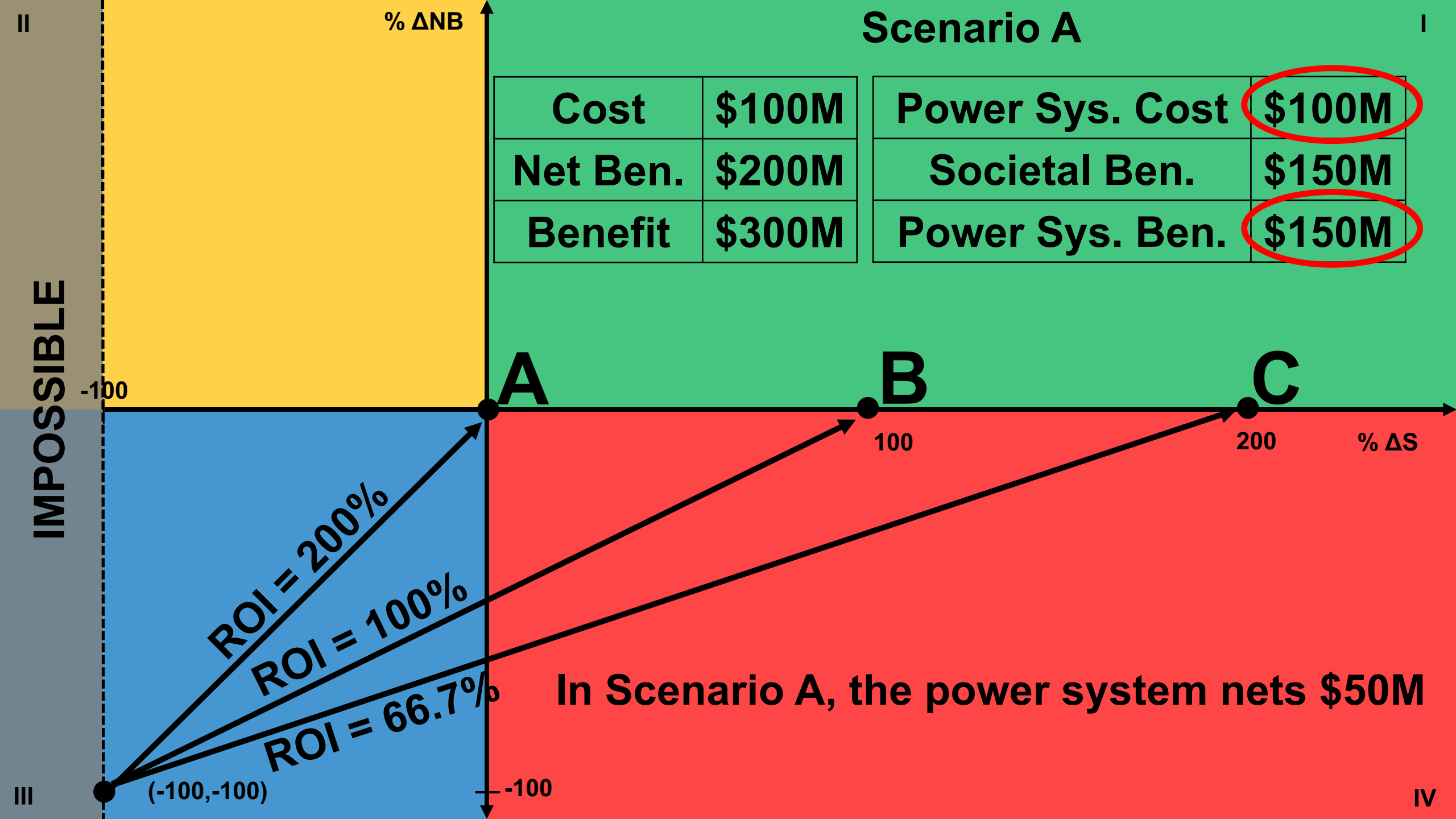

II
I
% ΔNB
%ΔNB = %ΔS
ROI = 400%
ROI = 200%
ROI = 100%
IMPOSSIBLE
-100
% ΔS
The change in ROI can be even more meaningful if less than 100% of the net benefits go to the investor
III
(-100,-100)
-100
IV

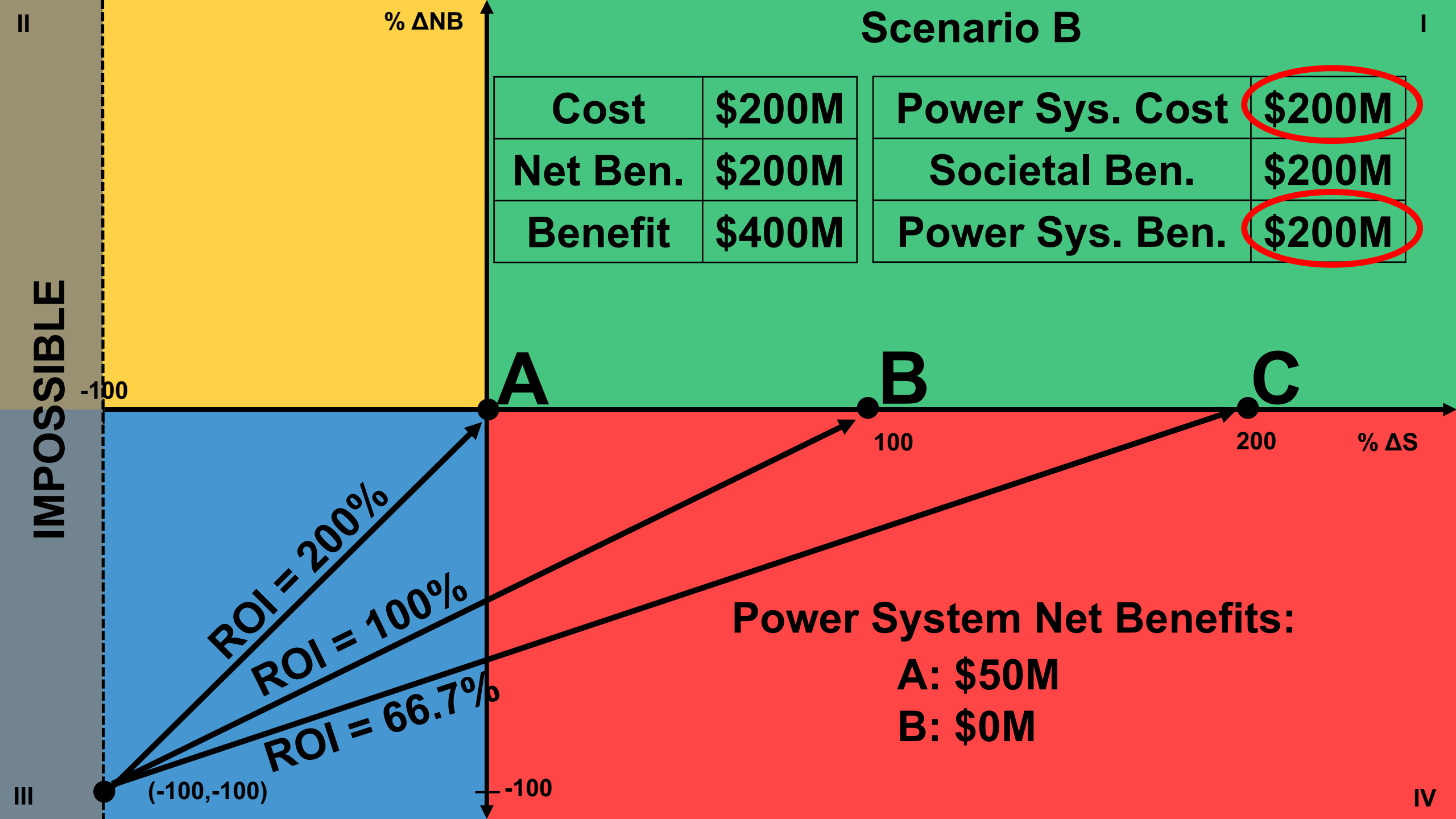

II
% ΔNB
I
Consider these three program outcomes
IMPOSSIBLE
-100
A
B
C
100
200
% ΔS
ROI = 200%
ROI = 100%
ROI = 66.7%
III
(-100,-100)
-100
IV

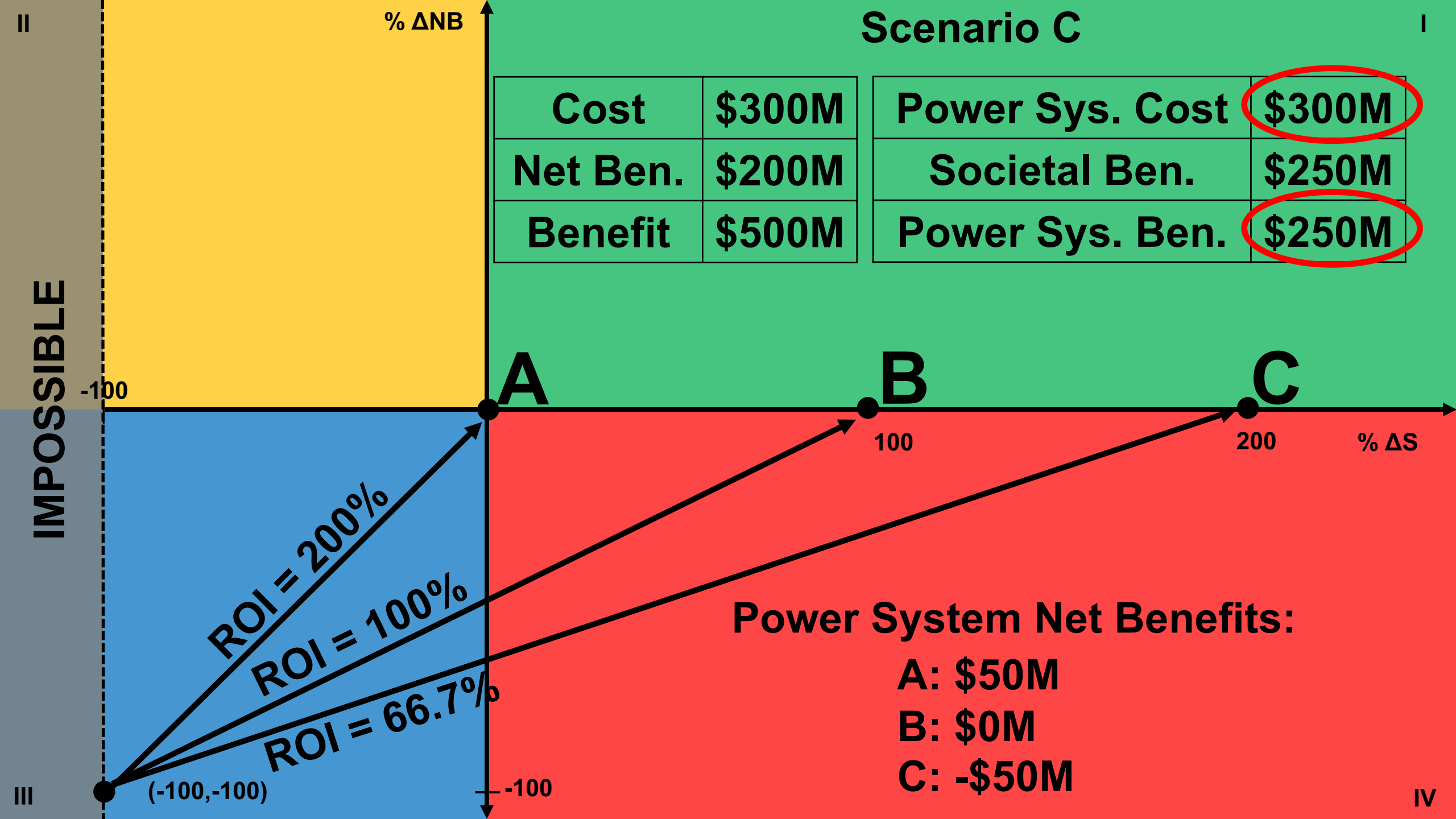

II
% ΔNB
I
Assume:
1. The target benefits is $300M and the target cost is $100M
2. The program creates benefits that are 50% power system and 50% societal
IMPOSSIBLE
A
B
C
-100
100
200
% ΔS
ROI = 200%
ROI = 100%
ROI = 66.7%
III
(-100,-100)
-100
IV

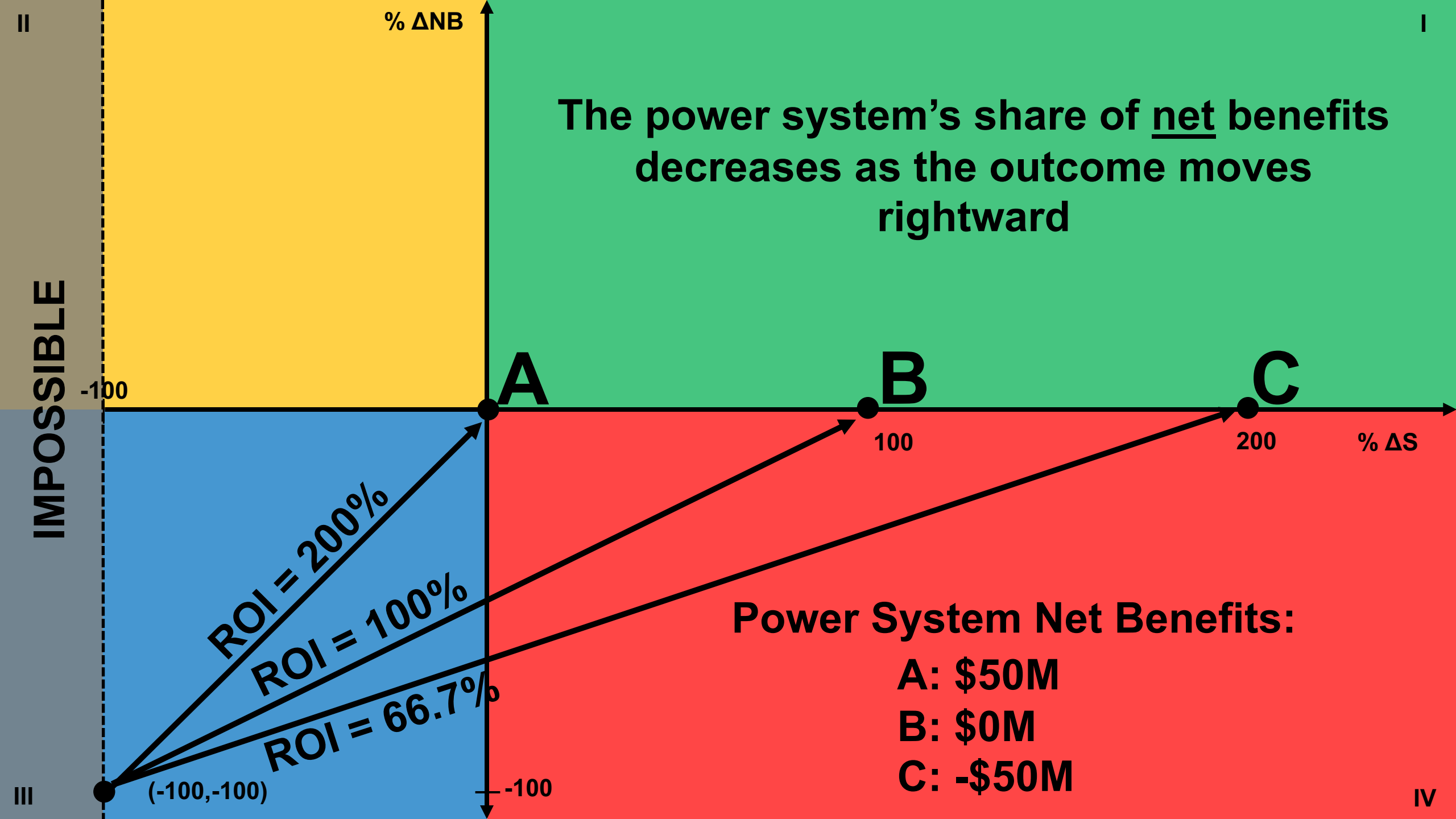

II
% ΔNB
I
Thus, the target net benefits are $200M
($300M benefits - $100M costs)
ROI = [($300-100)/(100)]*100
IMPOSSIBLE
-100
A
B
C
100
200
% ΔS
ROI = 200%
ROI = 100%
ROI = 66.7%
III
(-100,-100)
-100
IV

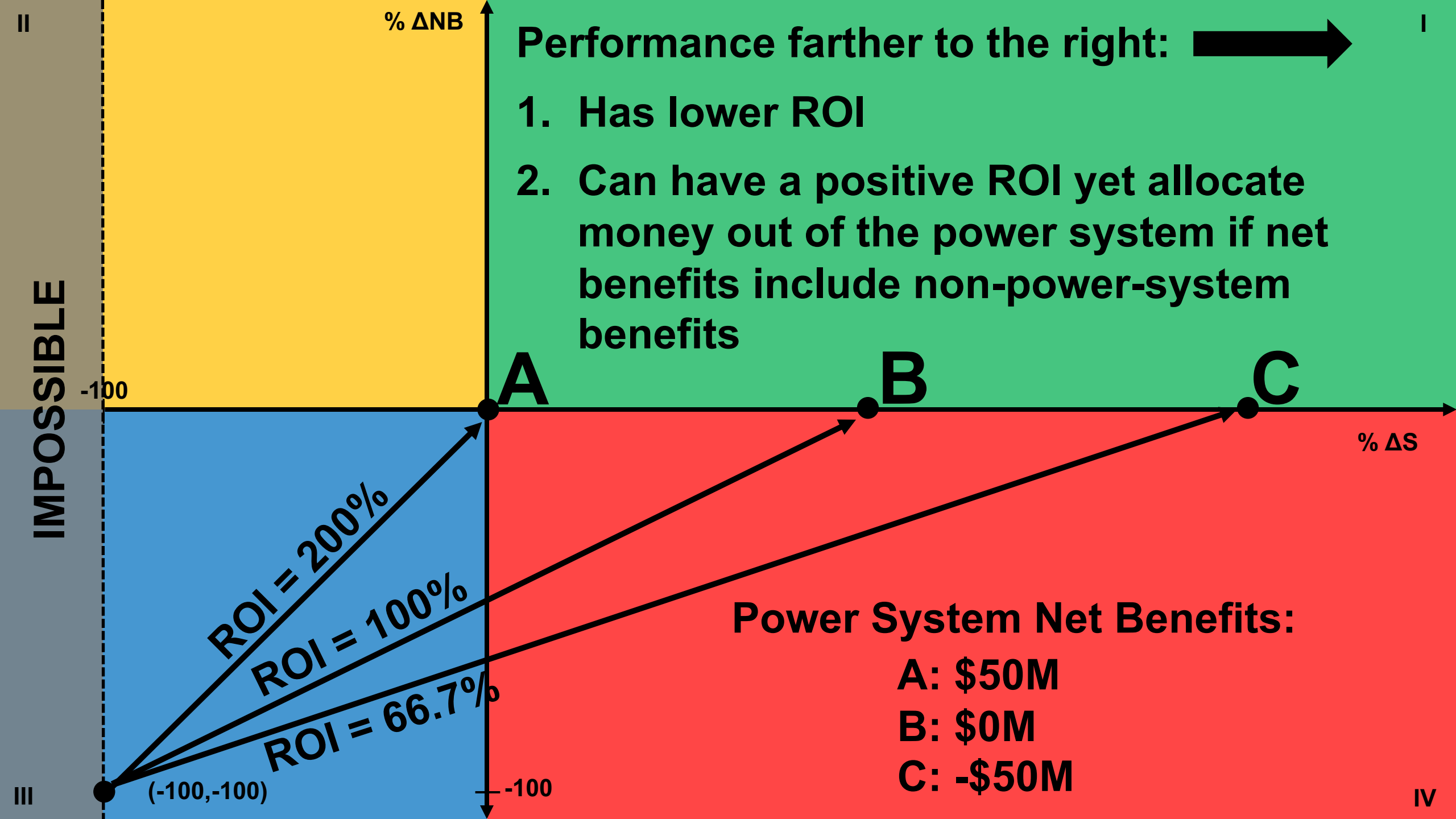

II
% ΔNB
Scenario A
I
Cost
$100M
Net Ben.
$200M
Benefit
$300M
Power Sys. Cost
$100M
Societal Ben.
$150M
Power Sys. Ben.
$150M
IMPOSSIBLE
-100
A
B
C
100
200
% ΔS
ROI = 200%
ROI = 100%
ROI = 66.7%
III
(-100,-100)
-100
IV


II
% ΔNB
Scenario A
I
Cost
$100M
Net Ben.
$200M
Benefit
$300M
Power Sys. Cost
$100M
Societal Ben.
$150M
Power Sys. Ben.
$150M
IMPOSSIBLE
-100
A
B
C
100
200
% ΔS
ROI = 200%
ROI = 100%
ROI = 66.7%
In Scenario A, the power system nets $50M
III
(-100,-100)
-100
IV


II
% ΔNB
Scenario B
I
Cost $200M
Net Ben. $200M
Benefit $400M
Power Sys. Cost $200M
Societal Ben. $200M
Power Sys. Ben. $200M
IMPOSSIBLE
-100
A
B
C
100
200
% ΔS
ROI = 200%
ROI = 100%
ROI = 66.7%
Power System Net Benefits:
A: $50M
B: $0M
III
(-100,-100)
-100
IV


II
% ΔNB
Scenario C
I
Cost $300M
Net Ben. $200M
Benefit $500M
Power Sys. Cost $300M
Societal Ben. $250M
Power Sys. Ben. $250M
IMPOSSIBLE
-100
A
B
C
100
200
% ΔS
ROI = 200%
ROI = 100%
ROI = 66.7%
Power System Net Benefits:
A: $50M
B: $0M
C: -$50M
III
(-100,-100)
-100
IV


II
% ΔNB
I
The power system's share of net benefits decreases as the outcome moves rightward
IMPOSSIBLE
-100
A
B
C
100
200
% ΔS
ROI = 200%
ROI = 100%
ROI = 66.7%
Power System Net Benefits:
A: $50M
B: $0M
C: -$50M
III
(-100,-100)
-100
IV


II
% ΔNB
I
Performance farther to the right:
1. Has lower ROI
2. Can have a positive ROI yet allocate money out of the power system if net benefits include non-power-system benefits
IMPOSSIBLE
-100
A
B
C
% ΔS
ROI = 200%
ROI = 100%
ROI = 66.7%
Power System Net Benefits:
A: $50M
B: $0M
C: -$50M
III
(-100,-100)
-100
IV

Appendix B

Electric Energy Efficiency Performance Incentive

Sector PI = min{ Payout Cap(j), [Actual Net Benefits* Design Payout Rate(g) * Payout Rate Adjustment(i)] }

	Planned Eligible Benefits		Planned Eligible Costs	Planned Eligible Net Benefits (4)	Design Performance Achievement	Design Performance Payout	Design Payout Rate	Design Payout Rate Thresholds	Payout Rate Adjustments	Payout Cap	Service Quality Metric
	(a) 100% Electric Utility System Benefits	(b) 50% Resource Benefits—	(c) As proposed + planned Regulatory costs	(d) =(a)+(b)-(c)	(e) Net benefits at which design incentive pool is achieved	(f)	(g) =(f)/(e)	(h) Achievement levels at which the Payout Rate Adjustments in (i) will be applied	(i) Factor to adjust Design Payout Rate for if final program achievement fall within the ranges in (h)	(j) =1.25*(f) Cap on sector payout regardless of achievement in sector	(k) Yes if (d) ≤ 0; No if (d) >0 See Service Quality Table
Mkt. Res.	$26,990,559	$6,296,916	$35,277,973	-$1,990,498	$2,000,000	$500,000	25%	a. Achievement < 25% b. 25% ≤ Achievement < 50% c. 50% ≤ Achievement < 75% d. 75% ≤ Achievement • Spending > Planned Eligible Costs	a. 0.0 b. Achievement/100 + 0.1 c. Achievement/100 + 0.25 d. 1.0 • See Boundary Rules	$625,000	Yes
IES	$5,949,644	$3,146,105	$16,887,402	-$7,791,653	$2,000,000	$500,000	25%			$625,000	Yes
C&I	$147,525,068	-$3,895,269	$54,119,601	$89,510,198	$89,510,198	$5,500,000	6.145%			$6,875,000	No

Electric Energy Efficiency Service Quality Adjustment

Sector SQA = Maximum Service Adjustment(e) * Service Achievement Scaling Factor(g)

	Planned Eligible Benefits		Planned Eligible Costs	Design Service Achievement	Maximum Service Adjustment	Service Adjustment Thresholds	Service Achievement Scaling Factors	Achievement Cost Adjustment
	(a) 100% Electric Utility System Benefits	(b) 50% Resource Benefits	(c) As proposed + planned Regulatory costs	(d)	(e) Maximum downward adjustment to earned incentive	(f) Adjusted Achievement levels at which the Service Adjustments in (e) will be applied; adjustment is calculated in (h)	(g) Factor to scale program achievement that fall within the ranges in (f)	(h) Actual-cost-based adjustment factor applied to achievement. Result is if the difference between achievement and cost variances are greater than 5%, the Actual Achievement will be adjusted for use in
Mkt. Res.	$26,990,559	$6,296,916	$35,277,973	$33,287,475	$1,251,250	a. Adjusted Achievement < 65% b. 65% ≤ Adjusted Achievement < 95% c. 95% ≤ Adjusted Achievement	a. 1 b. (95-Adjusted Achievement)/30 c. 0	Performance Variance = $\frac{\text{Actual Benefits}}{\text{Design Achievement}} - \frac{\text{Spending}}{\text{Planned Eligible Cost}}$ If the absolute value(Performance Variance) ≤ 0.05, • Then Adjusted Achievement = Actual Achievement • Else Adjusted Achievement = Actual Achievement * (1+ Performance Variance)
IES	$5,949,644	$3,146,105	$16,887,402	$9,095,749	$715,000			
C&I	N/A	N/A	N/A	N/A	N/A			

Gas Energy Efficiency Performance Incentive

Sector PI = min{ Payout Cap(j), [Actual Net Benefits* Design Payout Rate(g) * Payout Rate Adjustment(i)] }

	Planned Eligible Benefits		Planned Eligible Costs	Planned Eligible Net Benefits (4)	Design Performance Achievement	Design Performanc e Payout	Design Payout Rate	Design Payout Rate Thresholds	Payout Rate Adjustments	Payout Cap	Service Quality Metric
	(a) 100% Electric Utility System Benefits	(b) 50% Resource Benefits	(c) As proposed + planned Regulatory costs	(d) =(a)+(b)-(c)	(e) Net benefits at which design incentive pool is achieved	(f)	(g) =(f)/(e)	(h) Achievement levels at which the Payout Rate Adjustments in (i) will be applied	(i) Factor to adjust Design Payout Rate for if final program achievement fall within the ranges in (h)	(j) =1.25*(f) Cap on sector payout regardless of achievement in sector	(k) Yes if (d) ≤ 0; No if (d) >0 See Service Quality Table
Mkt. Res.	$14,388,455	$446,155	$14,712,461	$122,149	$122,149	$100,000	81.867%	a. Achievement < 25% b. 25% ≤ Achievement < 50% c. 50% ≤ Achievement < 75% d. 75% ≤ Achievement • Spending > Planned Eligible Costs	a. 0.0 b. Achievement/100 + 0.1 c. Achievement/100 + 0.25 d. 1.0 • See Boundary Rules	$125,000	Yes
IES	$5,249,197	$147,146	$9,145,150	-$3,748,806	$2,000,000	$500,000	25%			$625,000	Yes
C&I	$18,271,480	$205,019	$9,137,008	$9,339,492	$9,339,492	$1,600,000	17.132%			$1,800,000	No

Gas Energy Efficiency Service Quality Adjustment

Sector SQA = Maximum Service Adjustment(e) * Service Achievement Scaling Factor(g)

	Planned Eligible Benefits		Planned Eligible Costs	Design Service Achievement	Maximum Service Adjustment	Service Adjustment Thresholds	Service Achievement Scaling Factors	Achievement Cost Adjustment
	(a) 100% Electric Utility System Benefits	(b) 50% Resource Benefits	(c) As proposed+ planned Regulatory costs	(d)	(e) Maximum downward adjustment to earned incentive	(f) Adjusted Achievement levels at which the Service Adjustments in (e) will be applied; adjustment is calculated in (h)—	(g) Factor to scale program achievement that fall within the ranges in (f)	(h) Actual-cost-based adjustment factor applied to achievement. Result is if the difference between achievement and cost variances are greater than 5%, the Actual Achievement will be adjusted for use in
Mkt. Res.	$14,388,455	$446,155	$14,712,461	14,712,461	Not specifically defined in motion	a. Adjusted Achievement < 65% b. 65% ≤ Adjusted Achievement < 95% c. 95% ≤ Adjusted Achievement	a. 1 b. (95-Adjusted Achievement)/30 c. 0	Performance Variance = $\frac{\text{Actual Benefits}}{\text{Design Achievement}} - \frac{\text{Spending}}{\text{Planned Eligible Cost}}$ If the absolute value(Performance Variance) ≤ 0.05, • Then Adjusted Achievement = Actual Achievement • Else Adjusted Achievement = Actual Achievement * (1+ Performance Variance)
IES	$5,249,197	$147,146	$9,145,150	$5,396,343	Lesser of $276,250 and earned incentive			
C&I	N/A	N/A	N/A	N/A	N/A			

Electric and Gas Energy Efficiency Performance Incentive
Performance Space Boundary Rules (Same as proposed by Cmr. AWA)

RULE 1: **When sector-level spending is equal to or less than Planned Eligible Costs (column c) do no further adjustments.**

RULE 2: **When sector-level spending exceeds the Planned Eligible Costs (column c) and net benefits achieved exceed the sector Design Performance Achievement (column e) and the overachievement exceeds the overspending:**

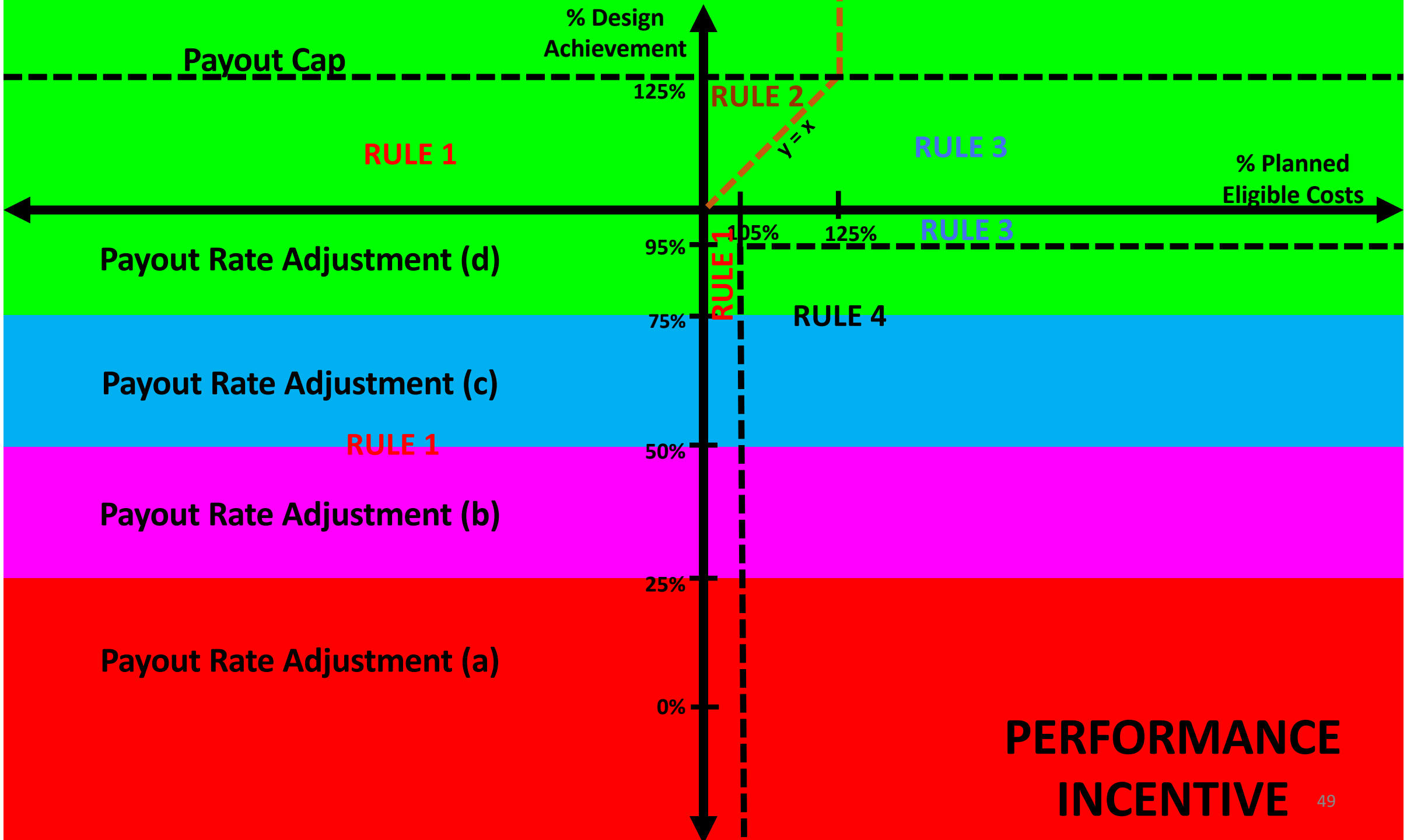
- **The outcome is above the theoretical planned performance line y=x in "Quadrant I"**
- **For every 1% that the spending exceeds the Planned Eligible Costs the sector Design Performance Payout (column f) applied to incremental net benefits above 100% of Design Performance Achievement will decrease by an amount equal to the Design Performance Payout divided by 25.**

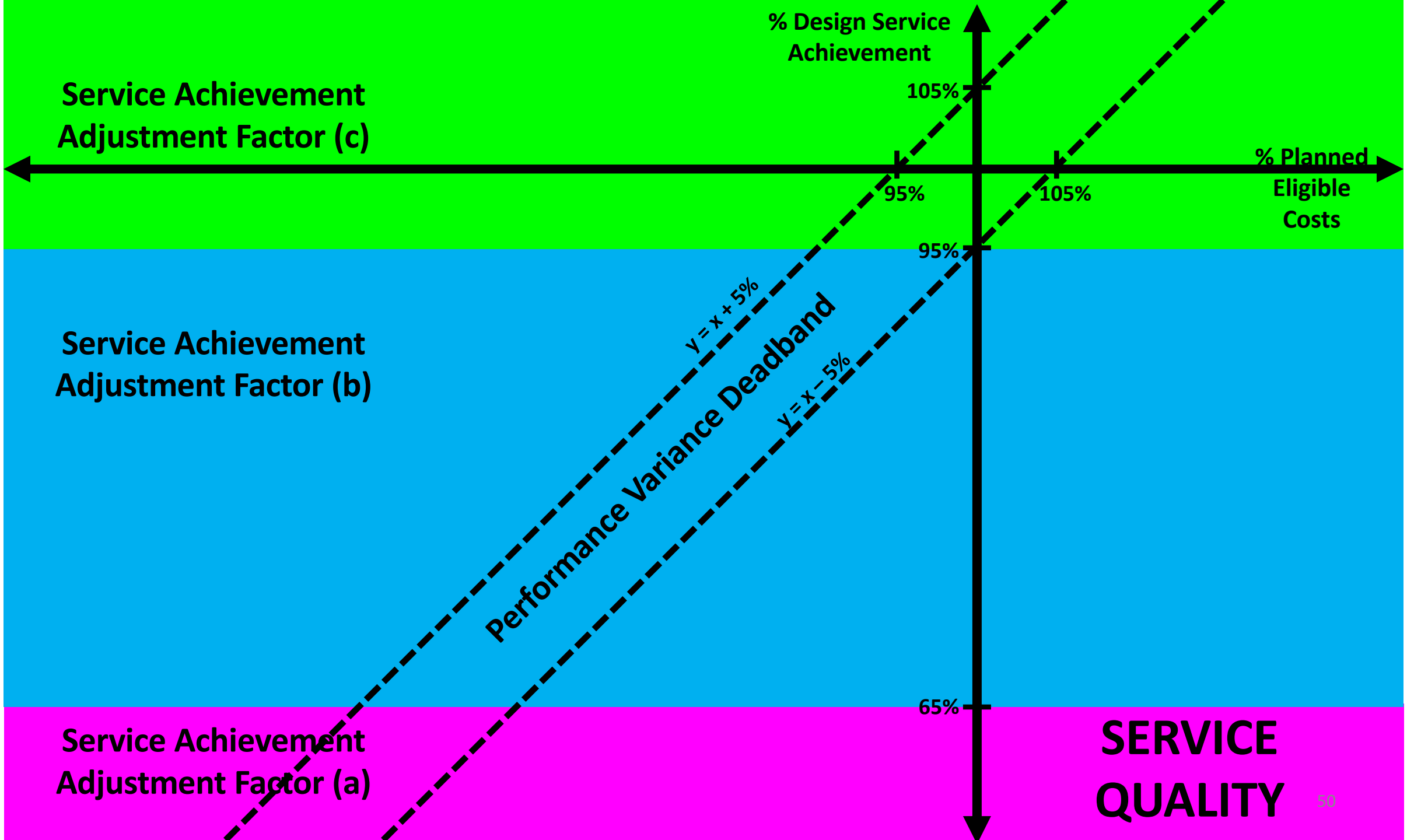
RULE 3: **When sector-level spending exceeds Planned Eligible Costs and net benefits achieved in the sector are greater than the sector Design Performance Achievement and the overspending exceeds the overachievement:**

- **The outcome is below the theoretical planned performance line y=x in "Quadrant I"**
- **National Grid is not eligible for an incentive on incremental net benefits that exceed 100% of Design Performance Achievement.**

RULE 4: **When sector-level spending exceeds the Planned Eligible Costs by more than 5% and net benefits achieved in the sector are below 95% sector Design Performance Achievement**

- **The outcome is below the theoretical planned performance line y=x in "Quadrant IV"**
- **For every 1% that the spending exceeds the Planned eligible Costs the sector Design Performance Payout, will decrease by an amount equal to the Design Performance Payout divided by 25.**


Payout Cap
% Design Achievement
125%
RULE 2
Y = X
RULE 1
RULE 3
% Planned Eligible Costs
105%
125%
RULE 3
95%
RULE 1
RULE 4
75%
Payout Rate Adjustment (d)
Payout Rate Adjustment (c)
RULE 1
50%
Payout Rate Adjustment (b)
25%
Payout Rate Adjustment (a)
0%
PERFORMANCE INCENTIVE


Service Achievement Adjustment Factor (c)
% Design Service Achievement
105%
% Planned Eligible Costs
95%
105%
95%
Service Achievement Adjustment Factor (b)
Performance Variance Deadband
y = x + 5%
y = x − 5%
65%
Service Achievement Adjustment Factor (a)
SERVICE QUALITY

Electric and Gas Energy Efficiency Sector Performance Incentive Steps (for each Sector)

1. **Calculate the Achievement by dividing Actual Net Benefits by the Design Performance Achievement (column e).**
2. **Compare the Achievement to the Design Payout Rate Thresholds (column h) to determine applicable Payout Rate Adjustment (column i).**
3. **Determine which Performance Space Boundary Rule applies by comparing actual spending to the Planned Eligible Costs (column c).**
4. **Calculate the Potential Performance Incentive according to the applicable Boundary Rule:**

   Potential Performance Payout = …

   RULE 1: … Actual Net Benefits* Design Payout Rate * Payout Rate Adjustment

   RULE 2: … Design Performance Payout + { (Actual Net Benefits - Design Performance Achievement) * Design Payout Rate * Payout Rate Adjustment * [1 - 4 * round down to nearest 0.01 $\left(\frac{\text{Spending} - \text{Planned Eligible Cost}}{\text{Planned Eligible Cost}}\right)$ **] }**

   RULE 3: … Design Performance Payout

   RULE 4: … Actual Net Benefits* Design Payout Rate * Payout Rate Adjustment * [1 - 4 * round down to nearest 0.01 $\left(\frac{\text{Spending} - \text{Planned Eligible Cost}}{\text{Planned Eligible Cost}}\right)$ **]**

5. **Determine the Sector Performance Incentive as the lesser of the Potential Performance Payout and the Payout Cap (column j).**

Electric and Gas Energy Efficiency Service Quality Adjustment Steps (for Applicable Sectors)

1. **Determine if the sector is subject to a Service Quality Adjustment (column h).**
2. **Calculate the Achievement by dividing actual benefits by the Design Service Achievement (column d).**
3. **Calculate the Performance Variance:**

$$\text{Performance Variance} = \frac{\text{Actual Benefits}}{\text{Design Achievement}} - \frac{\text{Spending}}{\text{Planned Eligible Cost}}$$

4. **Determine the Adjusted Achievement:**

   If $-0.05 \leq$ Performance Variance ≤ 0.05, then Adjusted Achievement = Achievement

   Else, Adjusted Achievement = Achievement * (1 + Performance Variance)

5. **Compare the Adjusted Achievement to the Service Adjustment Thresholds (column f) to determine applicable Service Achievement Scaling Factor (column g).**
7. **Calculate the Sector Service Quality Adjustment:**

   Sector Service Quality Adjustment = Maximum Service Adjustment * Service Achievement Scaling Factor

Electric and Gas Energy Efficiency Performance Incentive Steps (for each Utility)

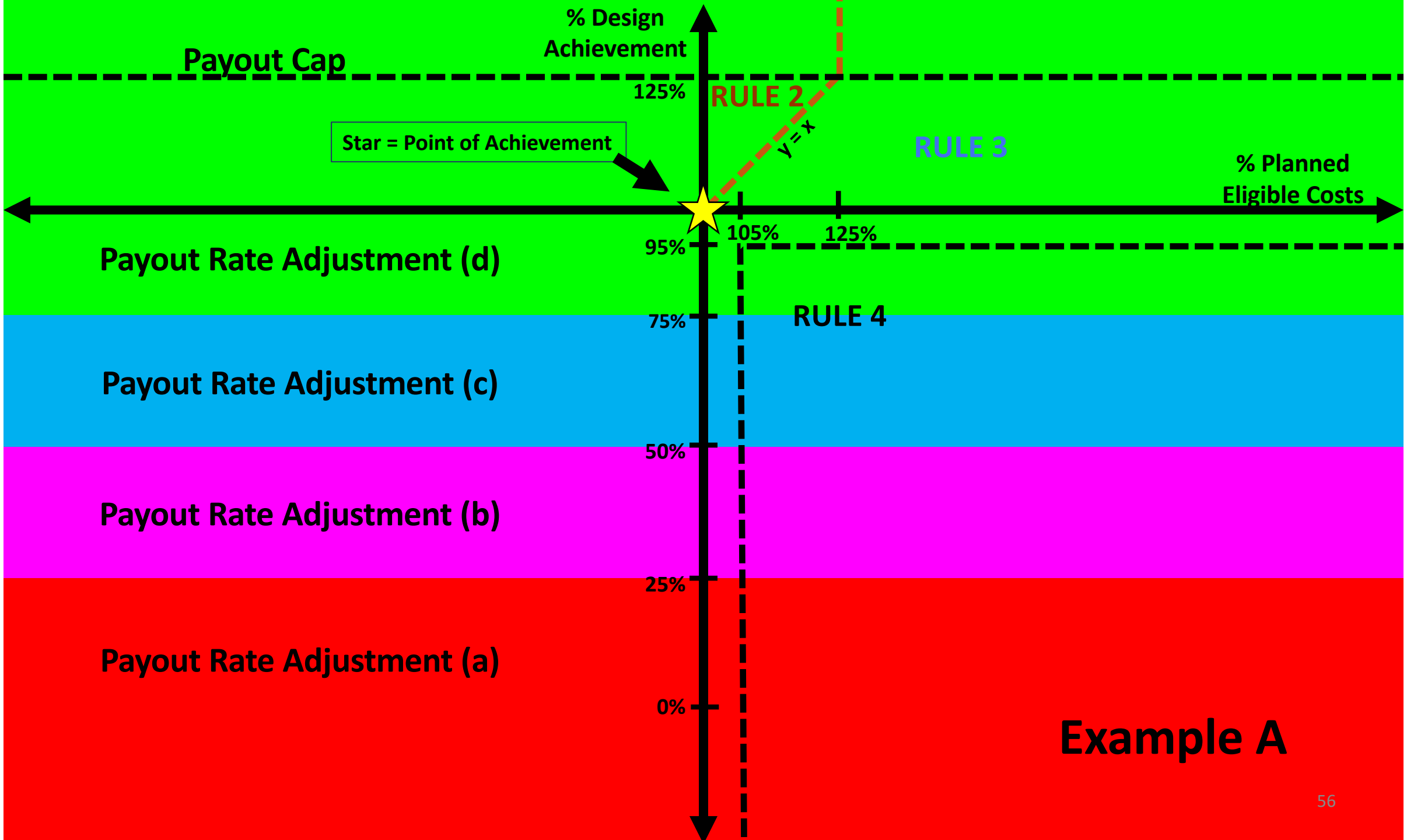
1. **Calculate the Total Potential Performance Incentive as the sum of the Sector Performance Incentives for the utility service (positive outcomes only; negative outcomes are treated as zero).**
2. **Calculate the Total Service Quality Adjustment as the sum of the Sector Service Quality Adjustments for the utility service.**
3. **Calculate the Adjusted Total Performance Incentive by subtracting the Total Service Quality Adjustment from the Total Potential Performance Incentive.**
4. **Determine the Final Performance Incentive for the utility service as the greater of zero and the Adjusted Total Performance Incentive.**

Examples

The Following Slides Are Intended to Provide Examples of How the PIM would Work

Example A:

National Grid Achieves Net Benefits and Spending at Design Levels


Payout Cap
% Design Achievement
125%
RULE 2
Star = Point of Achievement
RULE 3
Y = X
% Planned Eligible Costs
105%
125%
95%
RULE 4
75%
Payout Rate Adjustment (d)
Payout Rate Adjustment (c)
50%
Payout Rate Adjustment (b)
25%
Payout Rate Adjustment (a)
0%
Example A

Example A – Design Achievement and Spending

Sector Performance Incentive for Electric C&I with net benefits = $89,419,367 and spending = $54,119,633

Step 1. Achievement = $89,419,367/$89,419,367 = 100%

Step 2. Threshold band "d" applies because 75% ≤ Achievement, thus the Payout Rate Adjustment = 1

Step 3. Spending ≤ Planned Eligible Cost, thus Payout Rate Adjustment Boundary Rule 1 applies (no further adjustment)

Step 4. Potential Performance Payout = Actual Net Benefits* Design Payout Rate * Payout Rate Adjustment

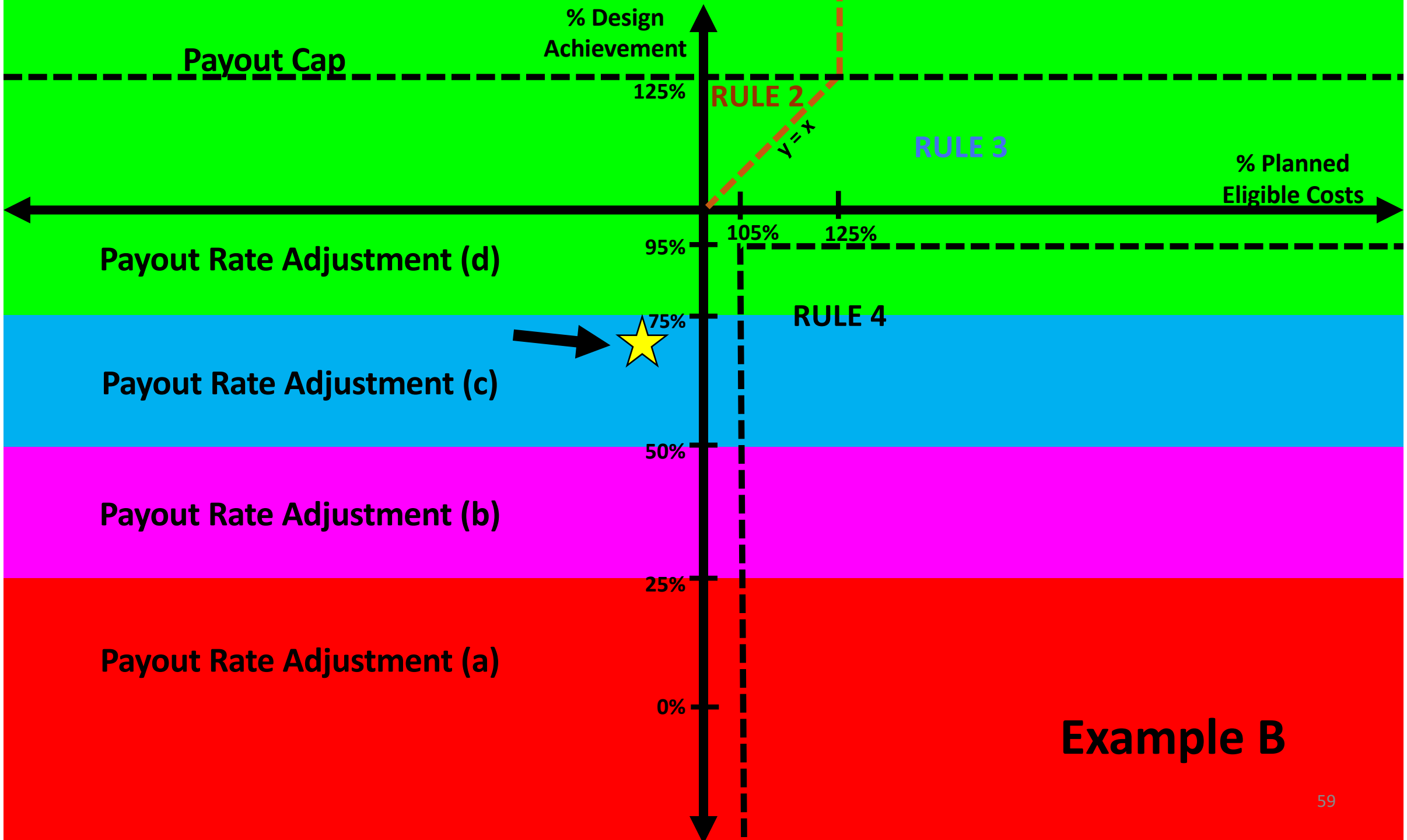
= $89,419,367 * 0.06150793 * 1

= $5,500,000

Step 5. $5,500,000 is below the Payout Cap of $6,875,000, thus the Performance Incentive for this sector is $5,500,000

Example B:

Moderate Achievement


% Design Achievement
Payout Cap
125%
RULE 2
Y = X
RULE 3
% Planned Eligible Costs
105%
125%
95%
RULE 4
75%
Payout Rate Adjustment (d)
Payout Rate Adjustment (c)
50%
Payout Rate Adjustment (b)
25%
Payout Rate Adjustment (a)
0%
Example B

Example B – Moderate Achievement

Sector Performance Incentive for Electric C&I with net benefits = $65,000,000 and spending = $50,000,000

Step 1. Achievement = $65,000,000/$89,419,367 = 72.6912%

Step 2. Threshold band "c" applies because 50% ≤ Achievement < 75%, thus the Payout Rate Adjustment = 0.726912+0.25 = 0.976912

Step 3. Spending ≤ Planned Eligible Cost, thus Payout Rate Adjustment Boundary Rule 1 applies (no further adjustment)

Step 4. Potential Performance Payout = Actual Net Benefits * Design Payout Rate * Payout Rate Adjustment

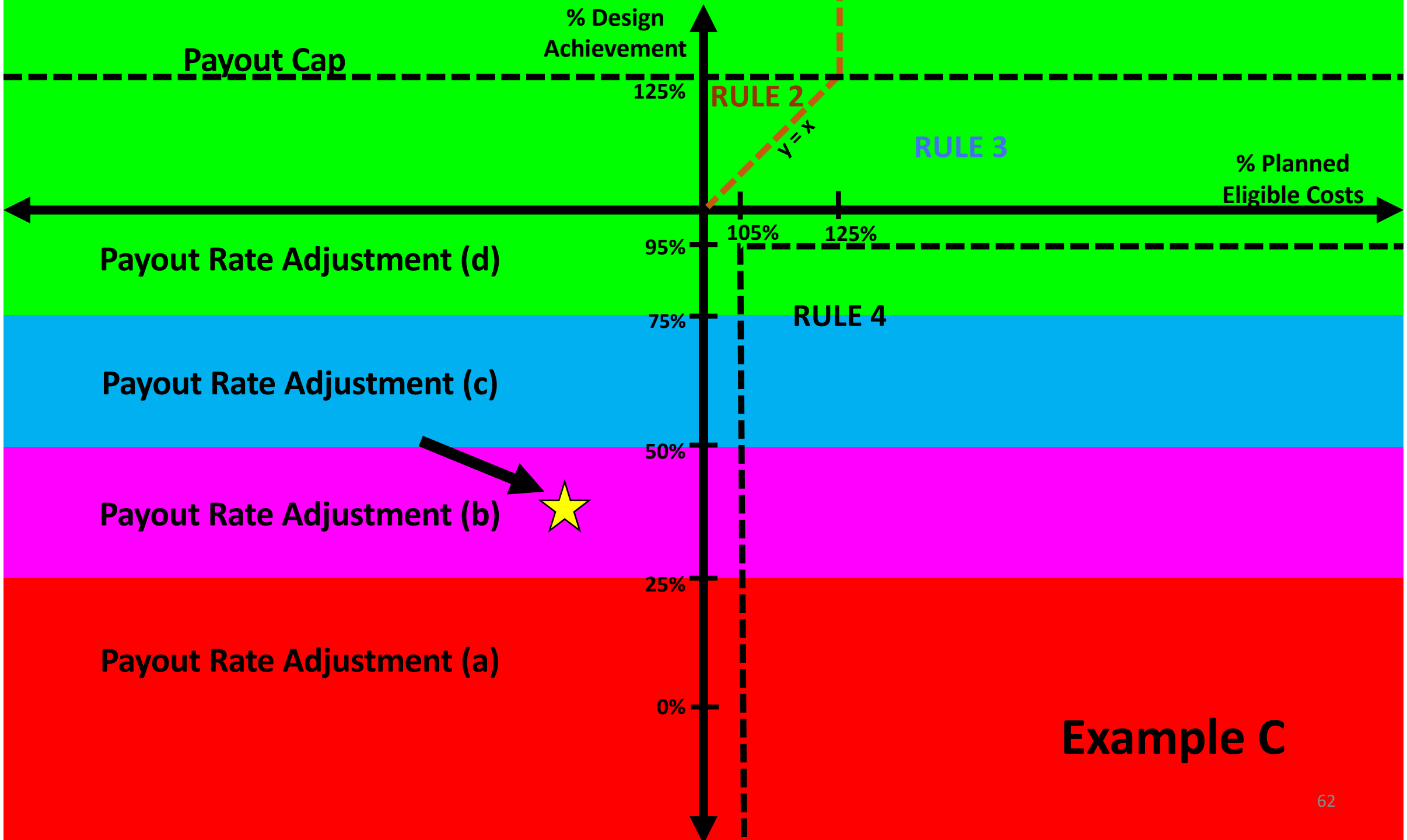
= $65,000,000 * 0.06150793 * 0.976912

= $3,905,709

Step 5. $3,905,709 is below the Payout Cap of $6,875,000, thus the Performance Incentive for this sector is $3,905,709

Example C:

Low Achievement


Payout Cap
% Design Achievement
125%
RULE 2
Y = X
RULE 3
% Planned Eligible Costs
105%
125%
95%
RULE 4
75%
Payout Rate Adjustment (d)
Payout Rate Adjustment (c)
50%
Payout Rate Adjustment (b)
25%
Payout Rate Adjustment (a)
0%
Example C

Example C – Low Achievement

Sector Performance Incentive for Electric C&I with net benefits = $35,000,000 and spending = $40,000,000

Step 1. Achievement = $35,000,000/$89,419,367 = 39.1414%

Step 2. Threshold band "b" applies because 25% ≤ Achievement < 50%, thus the Payout Rate Adjustment = 0.391414+0.1 = 0.491414

Step 3. Spending ≤ Planned Eligible Cost, thus Payout Rate Adjustment Boundary Rule 1 applies (no further adjustment)

Step 4. Potential Performance Payout = Actual Net Benefits * Design Payout Rate * Payout Rate Adjustment

= $35,000,000 * 0.06150793 * 0.491414

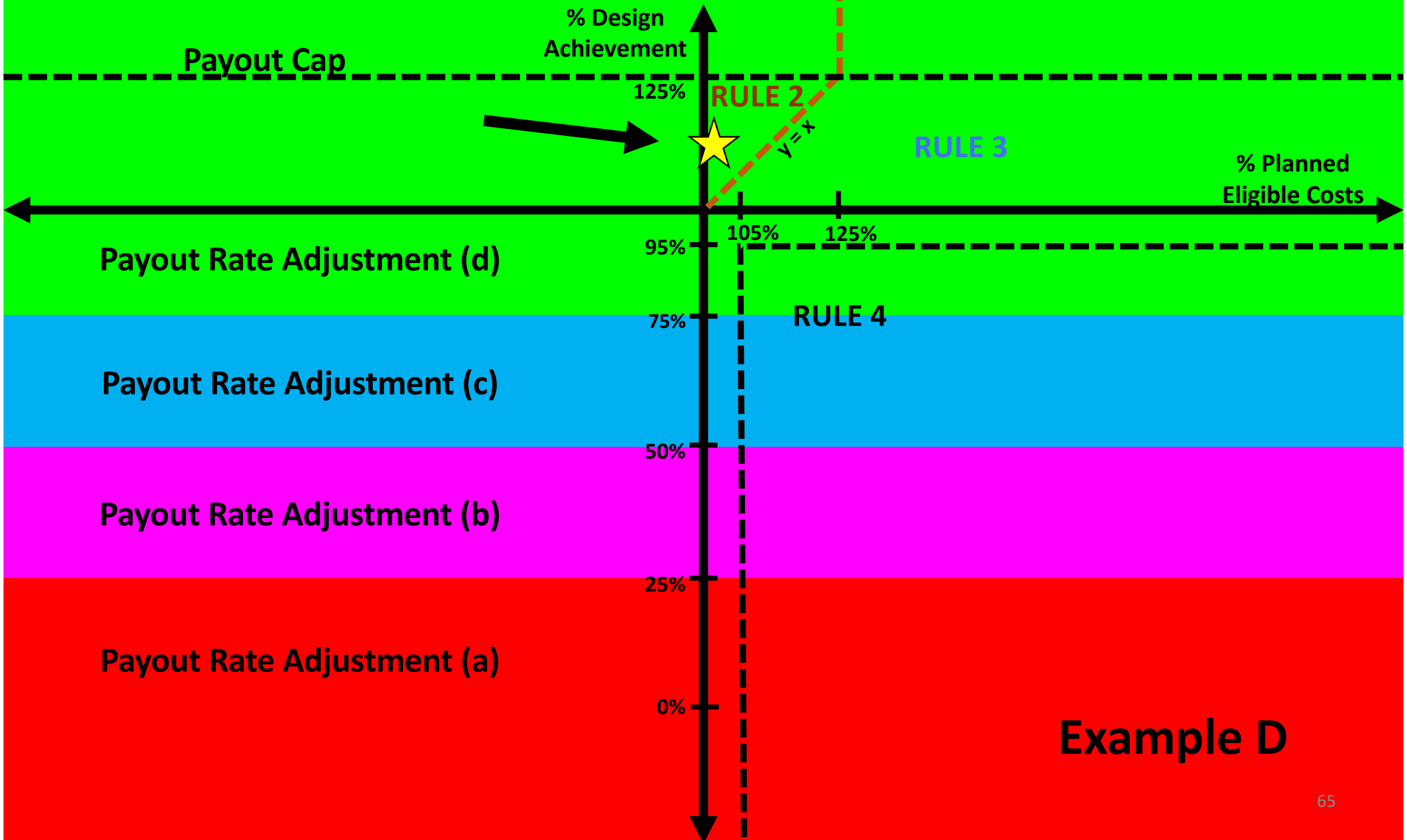
= $1,057,905

Step 5. $1,057,905 is below the Payout Cap of $6,875,000, thus the Performance Incentive for this sector is $1,057,905

Example D:

Rule 2

(Overachievement Exceeds Overspending)


% Design Achievement
Payout Cap
125%
RULE 2
Y = X
RULE 3
% Planned Eligible Costs
105%
125%
95%
RULE 4
75%
Payout Rate Adjustment (d)
Payout Rate Adjustment (c)
50%
Payout Rate Adjustment (b)
25%
Payout Rate Adjustment (a)
0%
Example D

Example D – Example of Rule 2 (Overachievement Exceeds Overspending)

Sector Performance Incentive for Electric C&I with net benefits = $100,000,000 and spending = $55,000,000

Step 1. Achievement = $100,000,000/$89,419,367 = 111.8326%

Step 2. Threshold band "d" applies because 75% ≤ Achievement, thus the Payout Rate Adjustment = 1

Step 3. Spending > Planned Eligible Cost and $\frac{\$55,000,000}{\$54,119,633} < \frac{\$100,000,000}{\$89,419,367}$, thus Payout Rate Adjustment Boundary Rule 2 applies (overachievement exceeded overspending)

Step 4. Potential Performance Payout = Design Performance Payout +

{ (Actual Net Benefits - Design Performance Achievement) *

Design Payout Rate * Payout Rate Adjustment * [1 - 4 *

round down to nearest 0.01$\left(\frac{\text{Spending} - \text{Planned Eligible Cost}}{\text{Planned Eligible Cost}}\right)$] }

= $5,500,000 + { ($100,000,000 - $89,419,367) * 0.06150793 * 1 *[1 - 4 *

$\text{round}_{d0.01}\left(\frac{\$55,000,00 - \$54,119,633}{\$54,119,633}\right)$] }

= $5,500,000 + { $10,580,363 * 0.06150793 * [1- 4 * 0.01] }

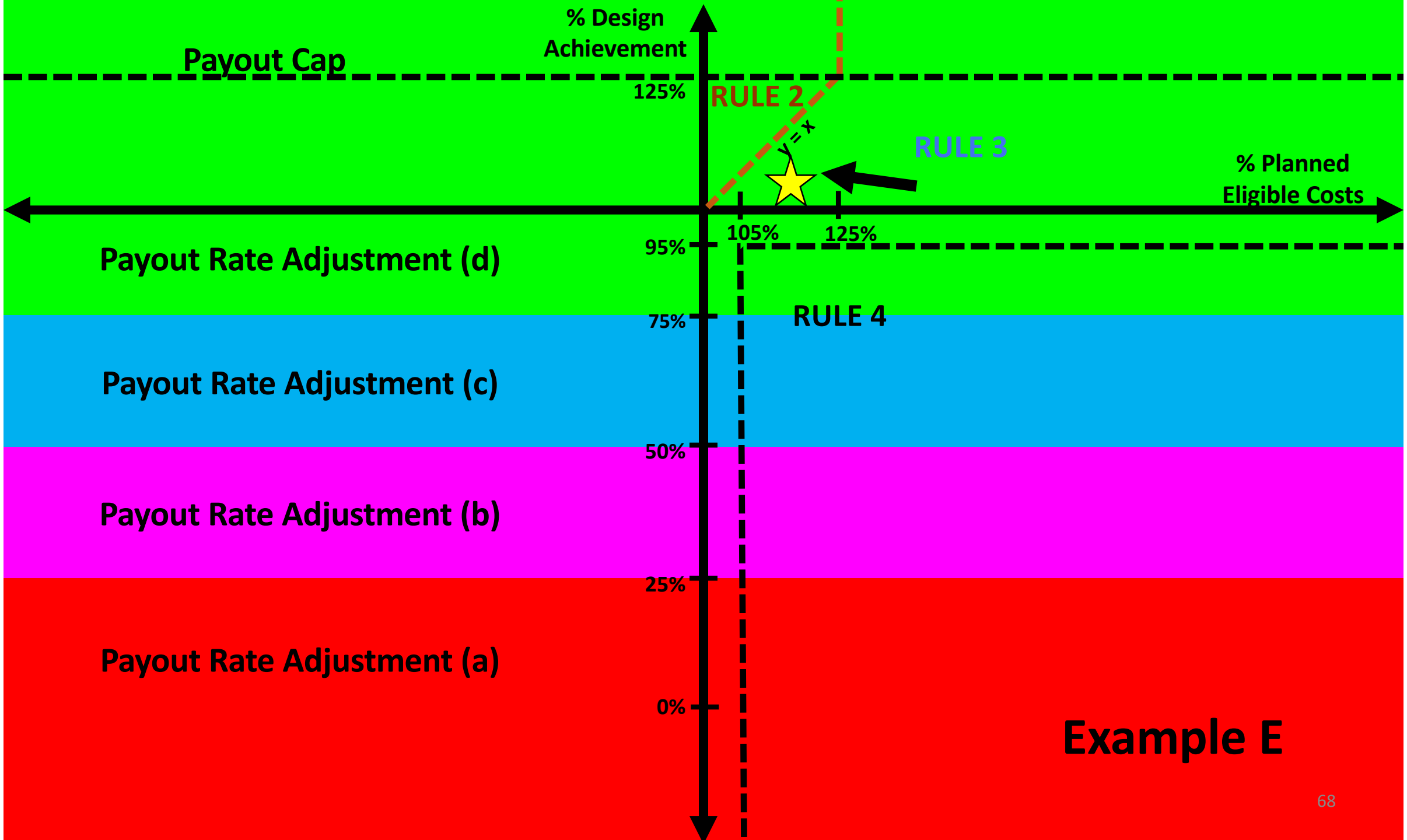
= $5,500,000 + $624,761

= $6,124,761

Example E

Rule 3

(Overspend Exceeds Overachievement)


% Design Achievement
Payout Cap
125%
RULE 2
y = x
RULE 3
% Planned Eligible Costs
105%
125%
95%
RULE 4
75%
Payout Rate Adjustment (d)
Payout Rate Adjustment (c)
50%
Payout Rate Adjustment (b)
25%
Payout Rate Adjustment (a)
0%
Example E

Example E – Rule 3 (Overspend Exceeds Overachievement)

Sector Performance Incentive for Electric C&I with net benefits = $95,000,000 and spending = $60,000,000

Step 1. Achievement = $95,000,000/$89,419,367 = 106.241%

Step 2. Threshold band "d" applies because 75% ≤ Achievement, thus the Payout Rate Adjustment = 1

Step 3. Spending > Planned Eligible Cost and $\frac{\$60,000,000}{\$54,119,633} > \frac{\$95,000,000}{\$89,419,367}$, thus Payout Rate Adjustment Boundary Rule 3 applies (overspending exceeded overachievement)

Step 4. Potential Performance Payout = Design Performance Payout

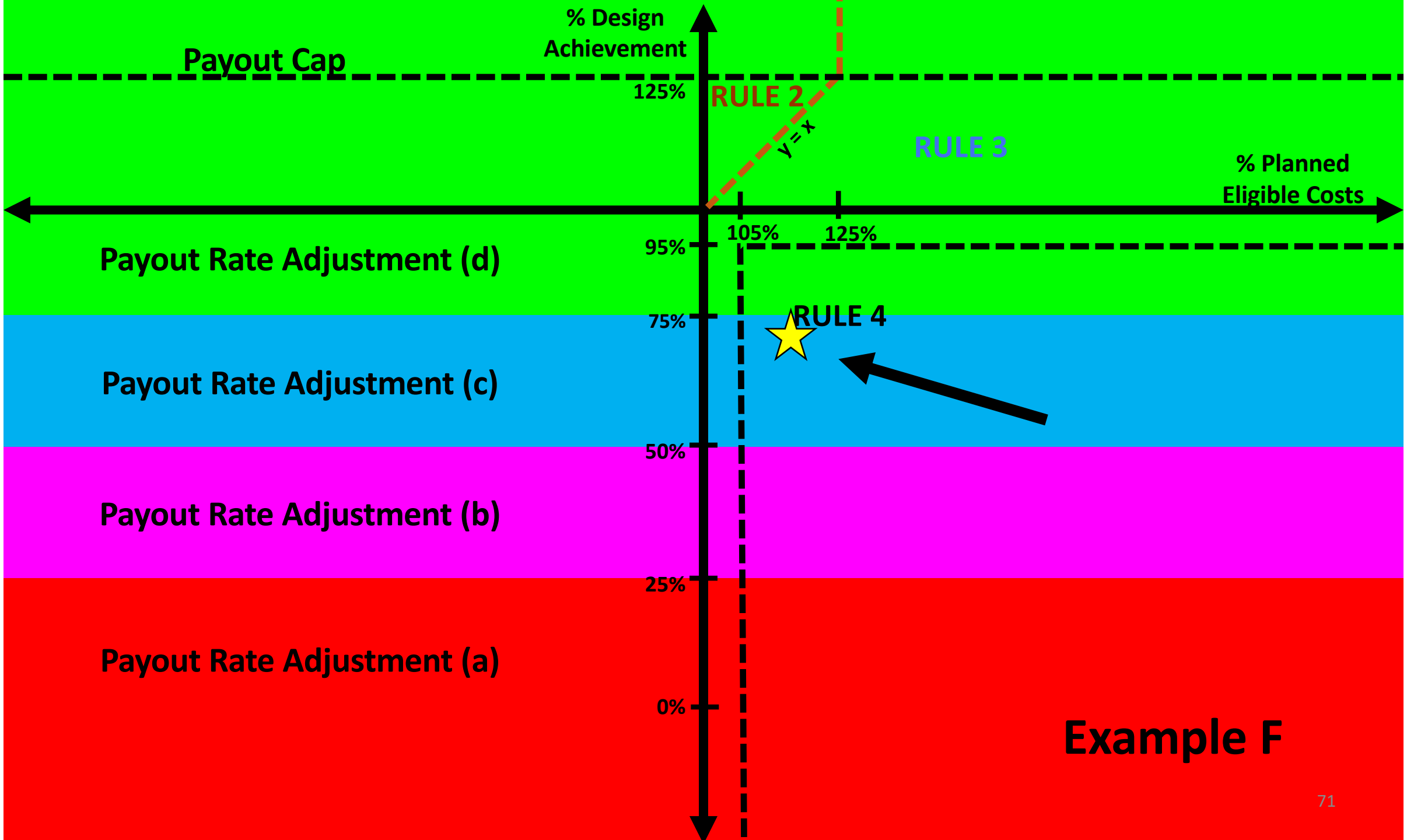
= $5,500,000

Step 5. $5,500,000 is below the Payout Cap of $6,875,000, thus the Performance Incentive for this sector is $5,500,000

Example F

Rule 4

(Overspending and Underachievement)


Payout Cap
% Design Achievement
125%
RULE 2
Y = X
RULE 3
% Planned Eligible Costs
105%
125%
95%
75%
RULE 4
50%
25%
0%
Payout Rate Adjustment (d)
Payout Rate Adjustment (c)
Payout Rate Adjustment (b)
Payout Rate Adjustment (a)
Example F

Example F – Rule 4 (Overspending and Underachievement)

Sector Performance Incentive for Electric C&I with net benefits = $65,000,000 and spending = $60,000,000

Step 1. Achievement = $65,000,000/$89,419,367 = 72.6912%

Step 2. Threshold band "c" applies because 50% ≤ Achievement < 75%, thus the Payout Rate Adjustment = 0.726912+0.25 = 0.976912

Step 3. Spending exceeds Planned Eligible Cost by more than 5% (10.8655%) and Achievement is more than 5% below the Design Performance Achievement, thus Payout Rate Adjustment Boundary Rule 4 applies (overspending and underachievement)

Step 4. Potential Performance Payout = Actual Net Benefits * Design Payout Rate * Payout Rate Adjustment * [1 - 4 * round down to nearest 0.01$\left(\frac{\text{Spending} - \text{Planned Eligbile Cost}}{\text{Planned Eligible Cost}}\right)$]

= $65,000,000 * 0.06150793 * 0.976912 * [1 - 4 * $\text{round}_{d0.01}\left(\frac{\$60,000,00 - \$54,119,633}{\$54,119,633}\right)$]

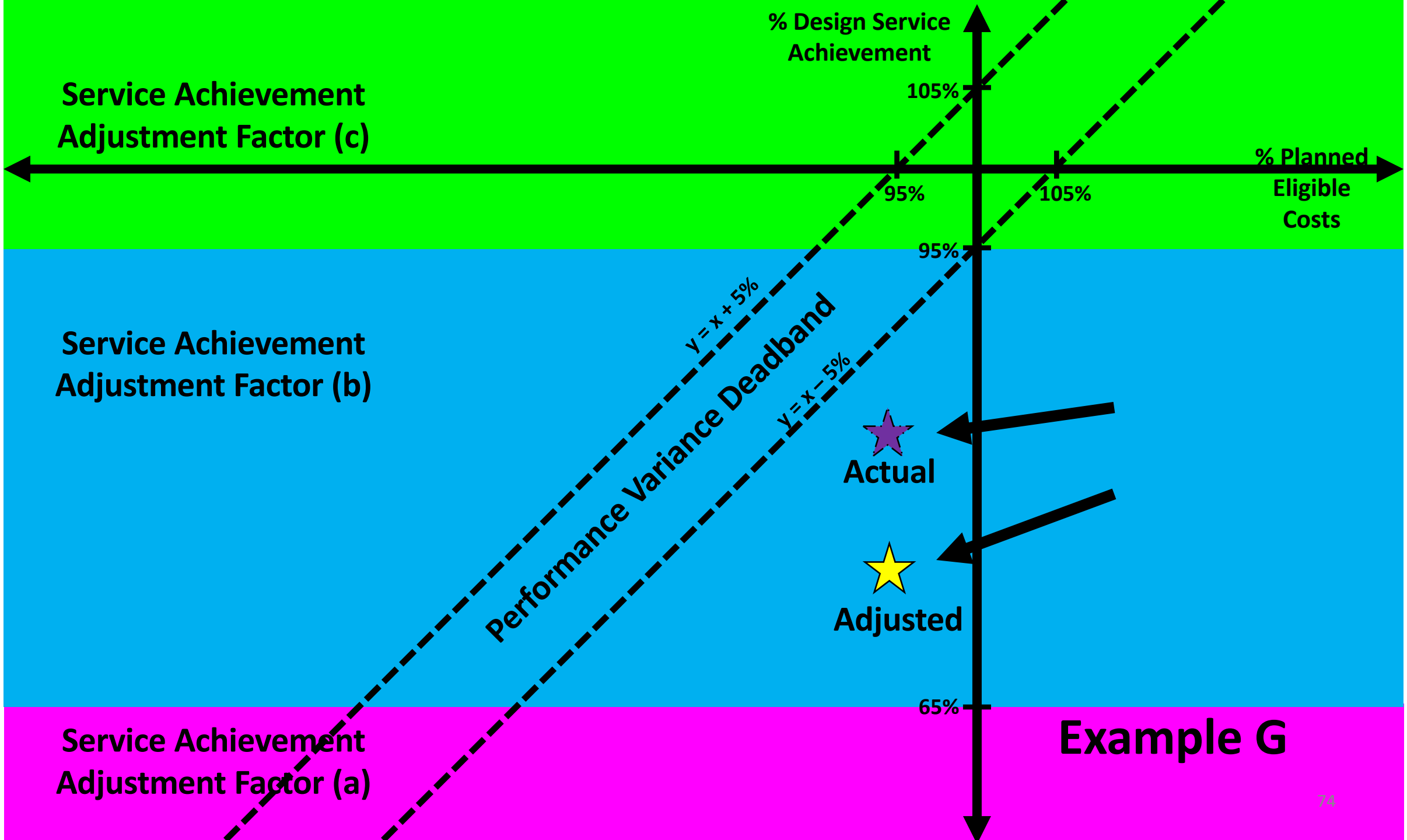
= $65,000,000 * 0.060089 * [1 – 4 * 0.10]

= $2,343,471

Step 5. $2,343,471 is below the Payout Cap of $6,875,000, thus the Performance Incentive for this sector is

Example G

Example of Service Quality Adjustment with Relatively High Spending


Service Achievement Adjustment Factor (c)
Service Achievement Adjustment Factor (b)
Service Achievement Adjustment Factor (a)
% Design Service Achievement
105%
95%
% Planned Eligible Costs
95%
105%
65%
y = x + 5%
y = x − 5%
Performance Variance Deadband
Actual
Adjusted
Example G

Example G – Example of Service Quality Adjustment with Relatively High Spending

Sector Service Quality Adjustment for Electric IES with net benefits = $0, benefits = $7,000,000 and spending = $16,000,000

Step 1. Service Quality Adjustment applies

Step 2. No incentive was earned, go to Step 3

Step 3. Achievement = $7,000,000/$8,514,000 = 82.22175%

Step 4. Performance Variance = $\frac{\text{Actual Benefits}}{\text{Design Achievement}} - \frac{\text{Spending}}{\text{Planned Eligible Cost}}$

$= \frac{\$7,000,000}{\$8,514,0000} - \frac{\$16,000,000}{\$16,887,433}$

$= -0.125274$

Step 5. Performance Variance is larger than 5%, thus

Adjusted Achievement = Achievement * (1 + Performance Variance)

Adjusted Achievement = 82.22175% * (1 + -0.125274) = 82.22175% * (0.874726)

Adjusted Achievement = 71.92150%

Step 6. Threshold band "b" applies because 65% ≤ Adjusted Achievement < 95%, thus the Service Achievement Scaling Factor = (95 – 71.92150)/30 = 0.7692833

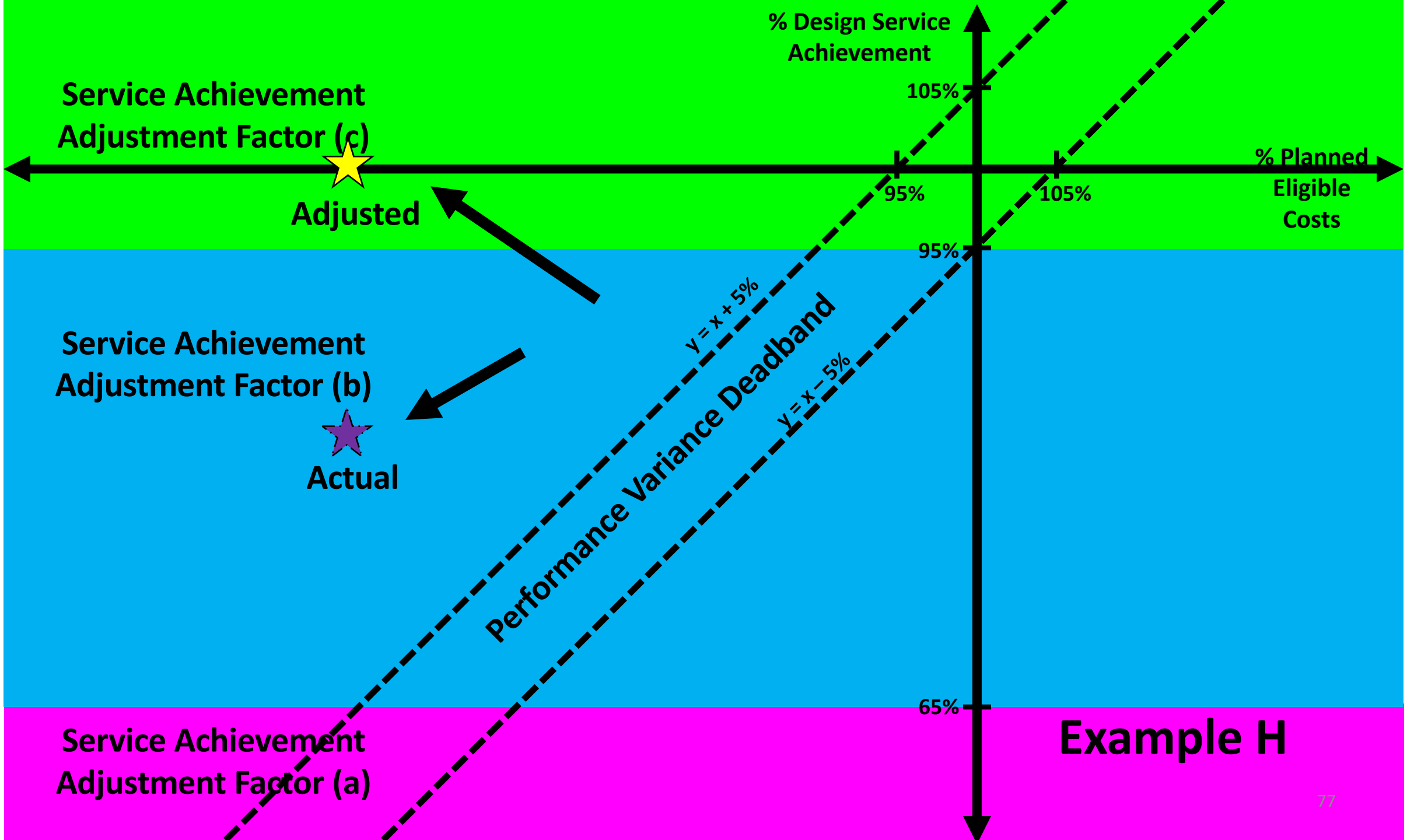
Step 7. Sector Service Quality Adjustment = Maximum Service Adjustment * Service Achievement Scaling Factor

Sector Service Quality Adjustment = $715,000 * .7692833

Sector Service Quality Adjustment = $550,038

Example H

Example of Service Quality Adjustment with Relatively Low Spending


% Design Service Achievement
105%
95%
65%
% Planned Eligible Costs
95%
105%
Service Achievement Adjustment Factor (c)
Adjusted
Service Achievement Adjustment Factor (b)
Actual
Service Achievement Adjustment Factor (a)
Performance Variance Deadband
y = x + 5%
y = x − 5%
Example H

Example H – Example of Service Quality Adjustment with Relatively Low Spending

Sector Service Quality Adjustment for Electric IES with net benefits = $0, benefits = $7,000,000 and spending = $10,000,000

Step 1. Service Quality Adjustment applies

Step 2. No incentive was earned, go to Step 3

Step 3. Achievement = $7,000,000/$8,514,000 = 82.22175%

Step 4. Performance Variance = $\frac{\text{Actual Benefits}}{\text{Design Achievement}} - \frac{\text{Spending}}{\text{Planned Eligible Cost}}$

$= \frac{\$7,000,000}{\$8,514,0000} - \frac{\$10,000,000}{\$16,887,433}$

= 0.230019

Step 5. Performance Variance is larger than 5%, thus

Adjusted Achievement = Achievement * (1 + Performance Variance)

Adjusted Achievement = 82.22175%*(1.230019) = 101.129%

Step 6. Threshold band "c" applies because 95% ≤ Adjusted Achievement, thus the Service Achievement Scaling Factor = 0

Step 7. Sector Service Quality Adjustment = Maximum Service Adjustment * Service Achievement Scaling Factor

Sector Service Quality Adjustment = $715,000 * 0

Sector Service Quality Adjustment = $0