

EFSPI

European Statistics Leaders Forum

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Leadership and Quantitative Decision-making



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Desired Outcome

To use our **quantitative skills** to
play a greater **leadership role**
for **decision-making**
in our companies

More Influence and Impact
Implies a **CHANGE** is needed



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Desired Outcome

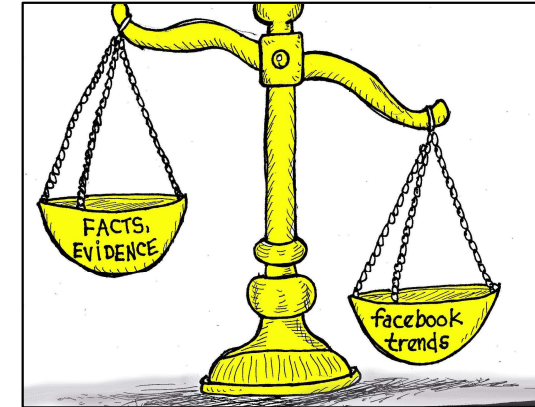
Got to have a seat at the table (where decisions are made ... or at least where advice is given)

- To get to the table you must have something (meaningful, credible) to say
- Diffuse leaders' concern – they make the decisions
- ◆ Ex: The blackjack table analogy



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Desired Outcome



Create
meaningful
input



Earn a seat
at the
table



Influence
decisions
routinely



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Desired Outcome (Example)

If you are not at the table, then create the table



10 mg vial



5 mg vial

Patients get 2-14 mg dose
(based on bodyweight)

SOLUTION:
Make a 1 mg vial

Hospital pharmacies will
combine up to 5 vials



3 mg vial



2 mg vial



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Desired Outcome



How do you
get here ...

... from
<wherever
you are>?



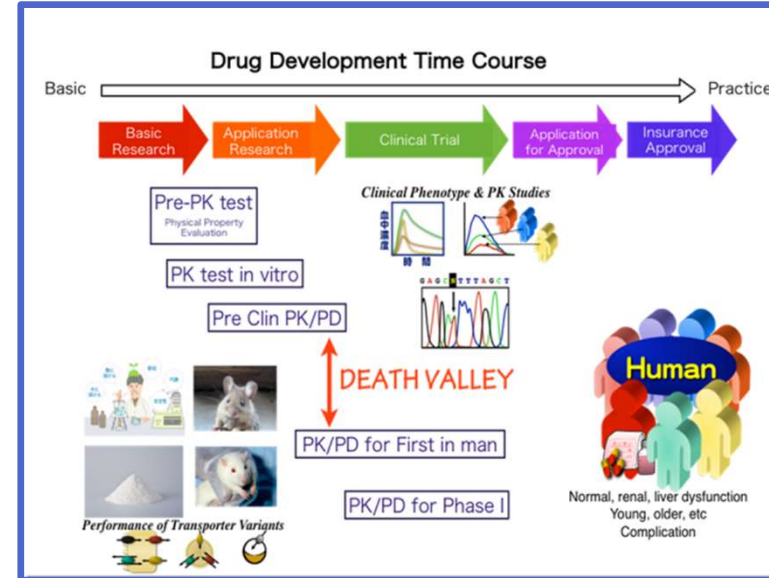
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How Does One Lead Change?

1. Vision

Leadership implies you are going somewhere

“A vision is a compelling image of an achievable future.”
Laura Berman Fortgang

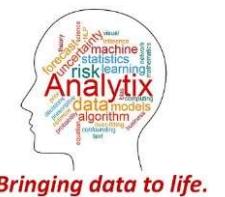


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How Does One Lead Change?

1. Vision

Requires *Focus*



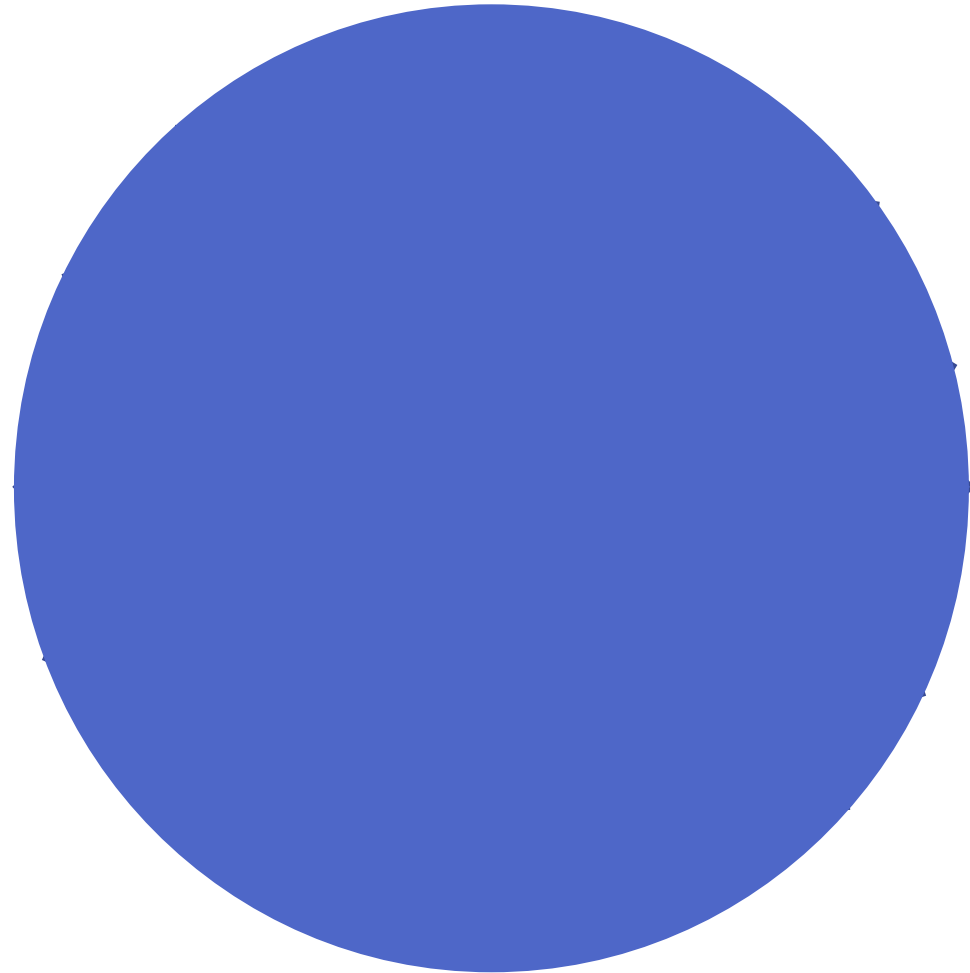
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How Does One Lead Change?

1. Vision

Requires *Focus*

“An arrow pointing in every direction is the same as an arrow pointing in no direction.”



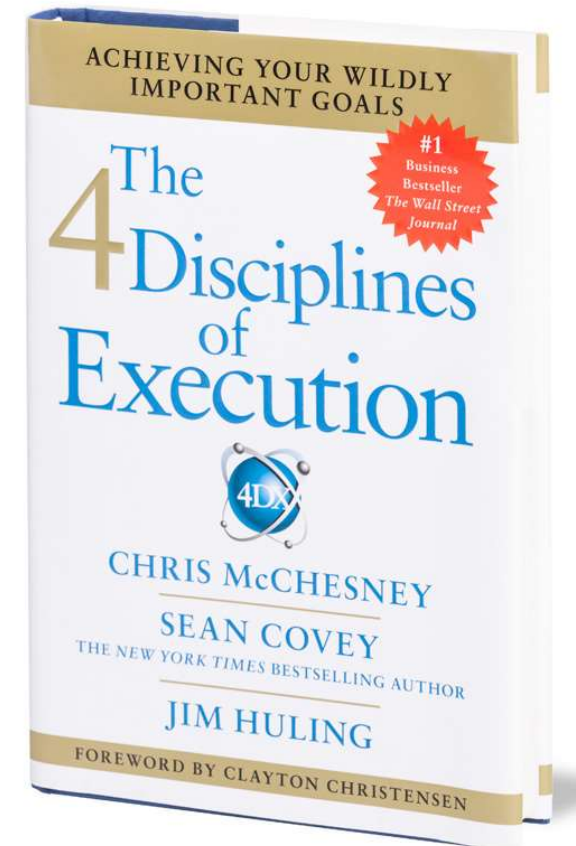
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How Does One Lead Change?

1. Vision

Requires *Focus*

Focus on the wildly important

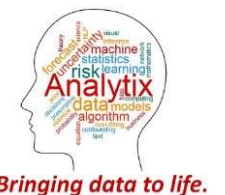


How Does One Lead Change?

1. Vision

Example

- Advanced Analytics (ca 2010)
 - ◆ Adaptive Designs and CT Optimization
 - ◆ Bayesian Statistics
 - ◆ Tailored Therapeutics – Personalize Medicine
 - ◆ Modeling & Simulation (economics, manufacturing, ...)
 - ◆ Data Mining
 - ◆ **Have a seat at the decision-making table**



How Does One Lead Change?

1. Vision

Leadership

Guide people to a foreseeable future state that they could not see on their own



How Does One Lead Change?

2. Skills

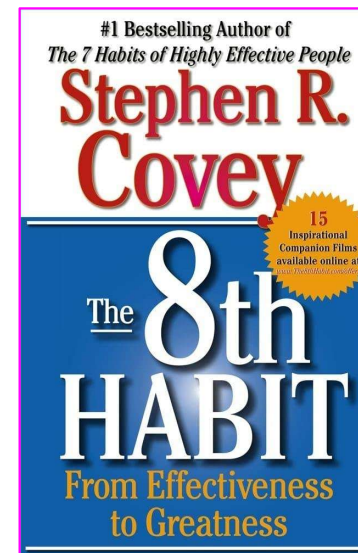
Recruiting

- Systematic
- Novel approaches



Training **AND** Education

The 8th Habit



How Does One Lead Change?

2. Skills

Leadership

Motivate people to become more than they thought they could be



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How Does One Lead Change?

3. Incentives

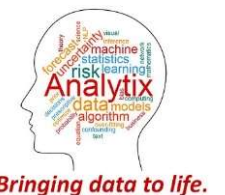
Metrics

- You get what you measure
- Alignment all the way up the Mgmt chain



Examples (quarterly metrics)

- % of Ph 3 trials that were simulated
- Pr(SS) for ALL Ph 2 and Ph 3 studies
- Subgroup ID prespecified for all Ph 2, Ph 3
- % of studies that were (Bayesian) adaptive



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How Does One Lead Change?

3. Incentives

Leadership

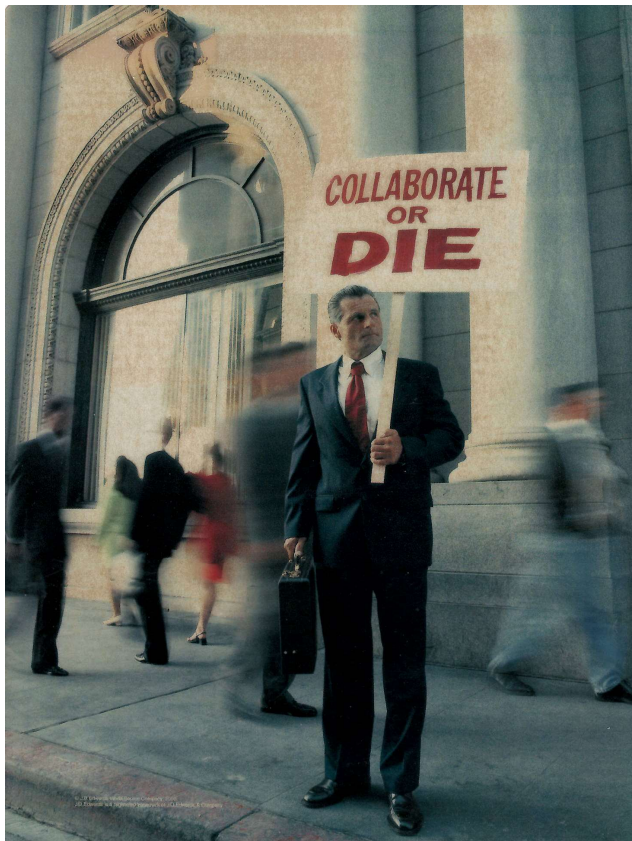
Reward people - beyond their expectations - who pursue the **Vision** fearlessly



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How Does One Lead Change?

4. Resources

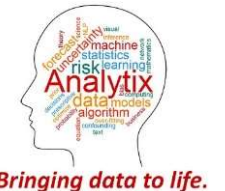


Negotiation skills

- With Mgmt
- With other departments

Networking / creative sourcing

Stop the “Unwildly” important



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How Does One Lead Change?

4. Resources

SCALABLE



Are you* scalable?

1. Can you tolerate candor?
2. Can you coach and be coachable?
3. Can you build and leverage a network?
4. Can you engage in systems thinking?
5. Can you combine empathy and expectation into Accountability?
6. Can you influence through persuasion?
7. Can you lead with questions rather than answers?
8. Can you disturb the status quo?
9. Can you learn at or above the speed of change?
10. Can you inspire people?

From Tim Clark's *Leading with Character and Competence*

*You as in personally as well as organizationally.



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How Does One Lead Change?

4. Resources

Leadership

Create a collaborative network that your team cannot do on their own



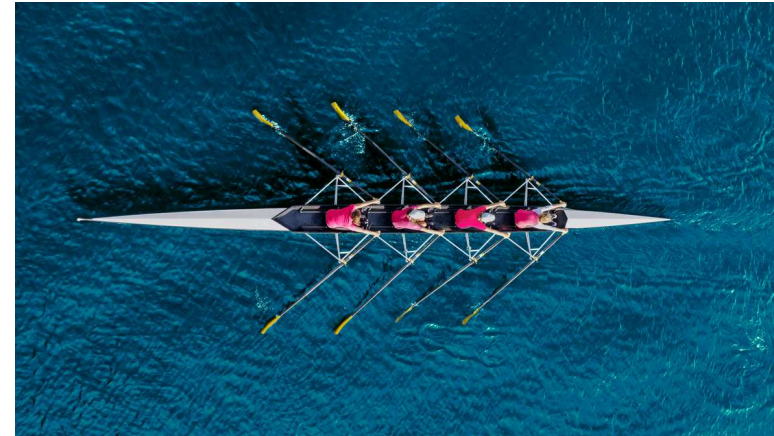
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How Does One Lead Change?

5. Action Plan

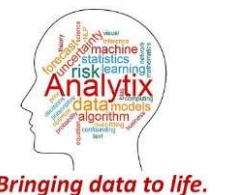
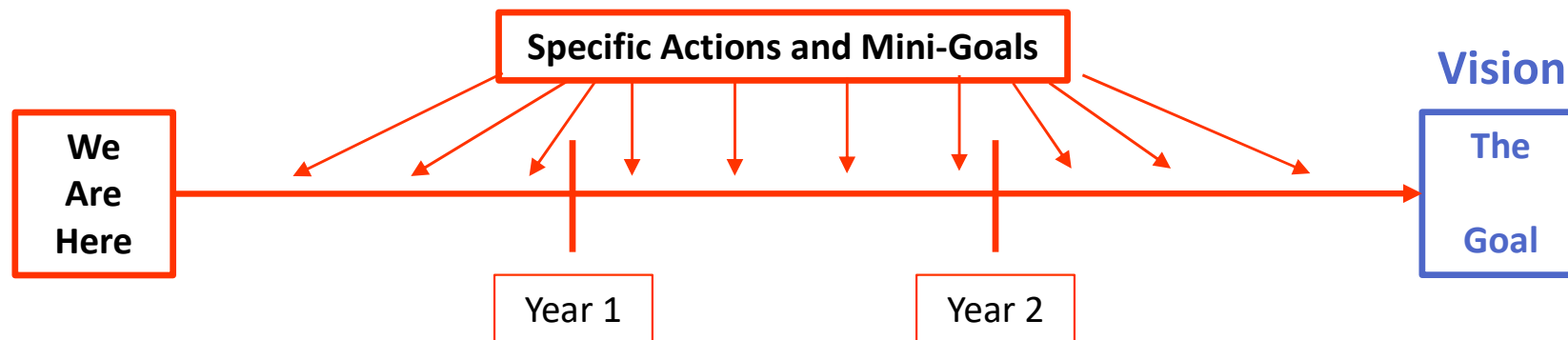
Requires *Alignment*

- *Starts with Focus*
- *Ends with Alignment*



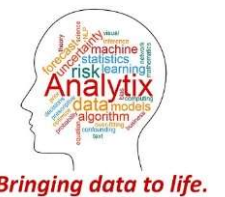
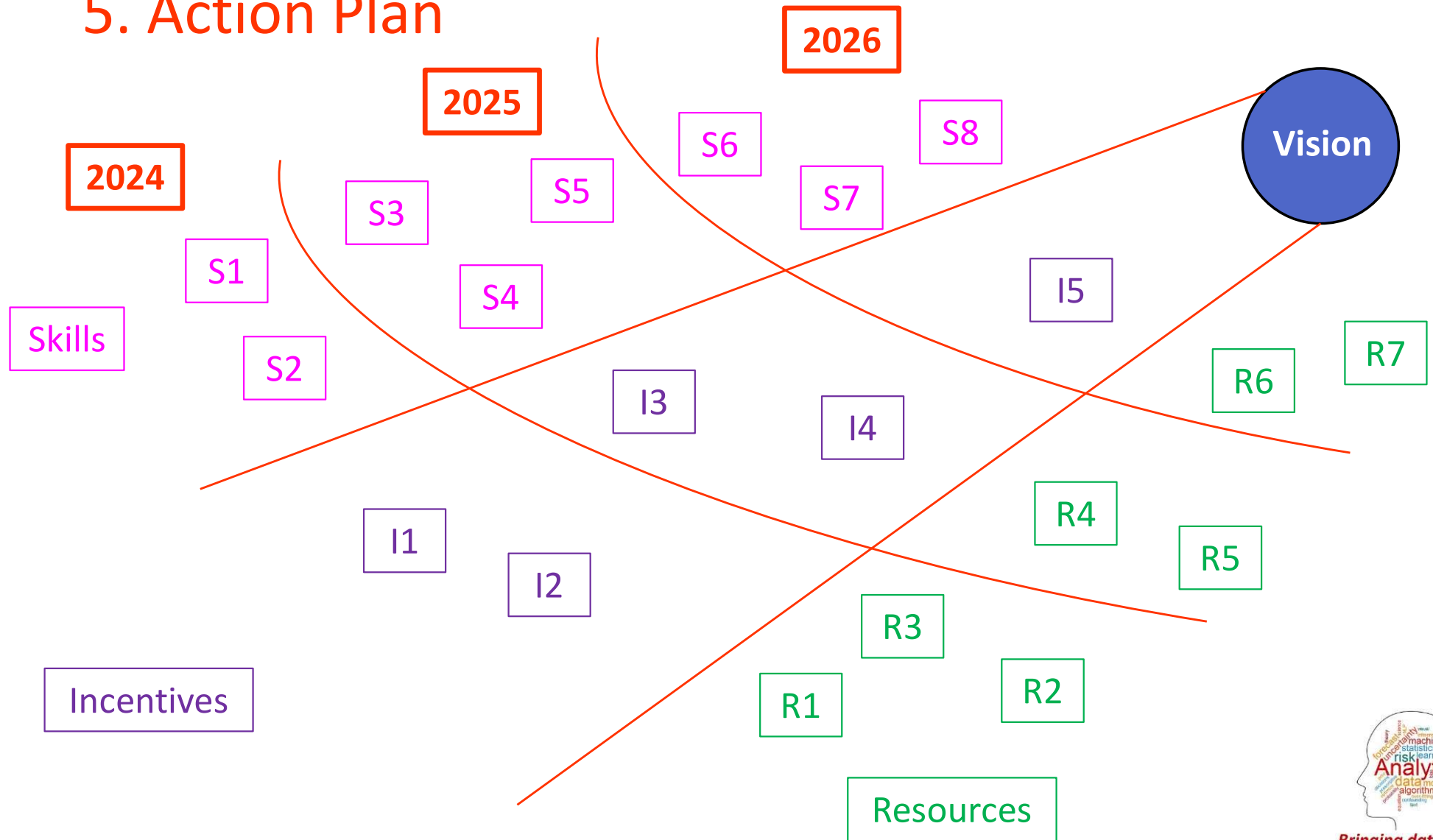
Example

Transformation Map (Skills, Incentives, Resources)



How Does One Lead Change?

5. Action Plan



How Does One Lead Change?

5. Action Plan

Leadership

Inspire people to take a course of action when they can freely choose otherwise



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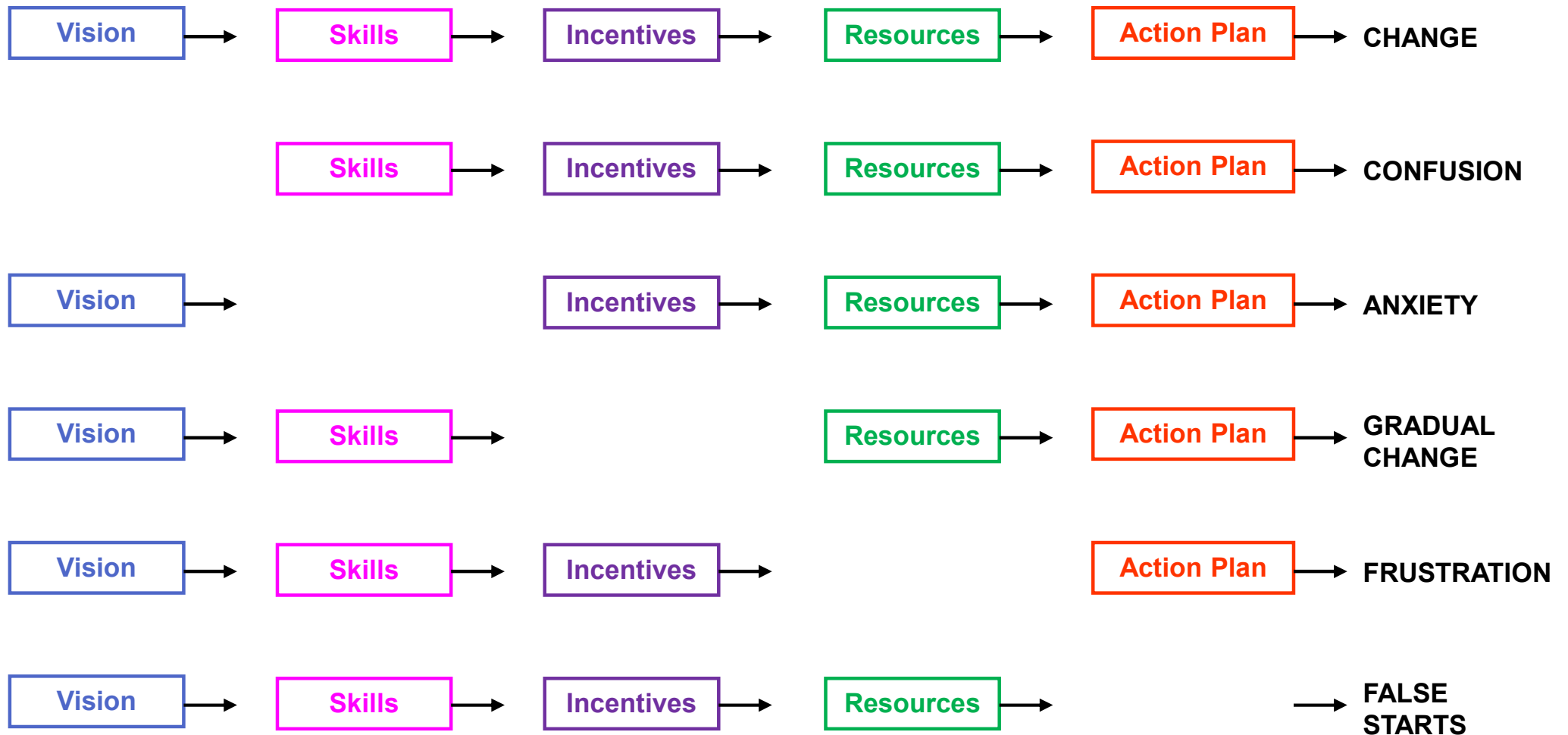
How Does One Lead Change?

When taken together,
you get ...



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Leading Disruptive/Complex Change



Note that without adequate **COMMUNICATION** of each of these elements, it is the same as not having the element present.

Communication

Explanation (the **Vision** and the **Action Plan**)

- Must be a consistent message
- Repeat it over and over and over
- Emphasize **VALUE**
 - ◆ To individual, department, team, company

Motivation (**Skills**, **Incentives**, **Resources**)

- Your own staff
- Colleagues around you
- Your management

Story telling, analogies, inspiring quotes



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Communication

Value

- Reduce cost
- Reduce cycle time
- Improve probability of success

Concise

- 1-page PPT summaries (STAR format)

SEMPER PARATUS!!!!

No one cares about cool math

- It's a means to an end



Communication

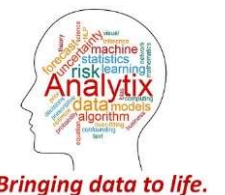
Marketing

Tagline

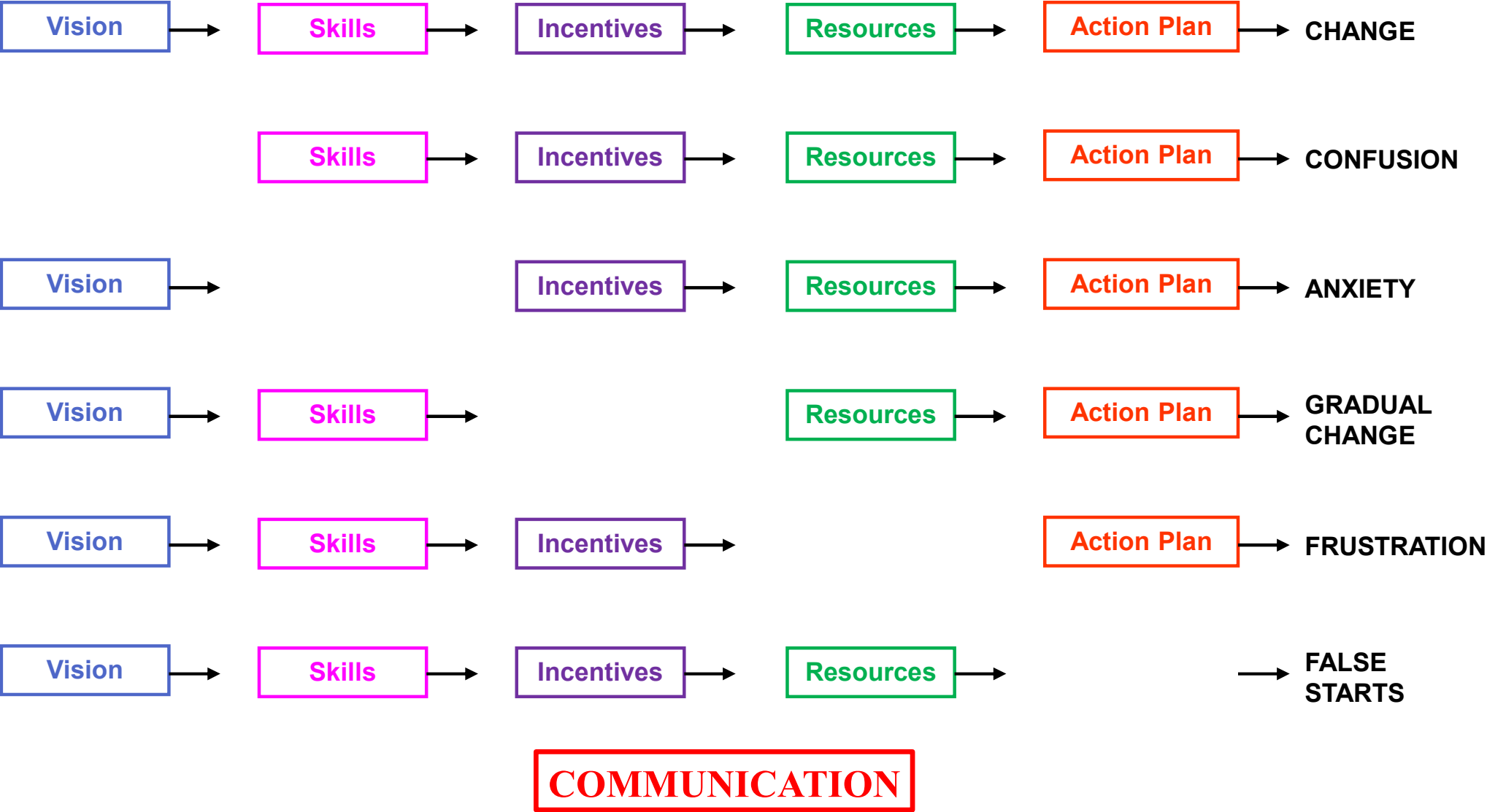
Making what's advanced today routine tomorrow.

Logo (on all our slides)

Adv**An**ced
Analytics
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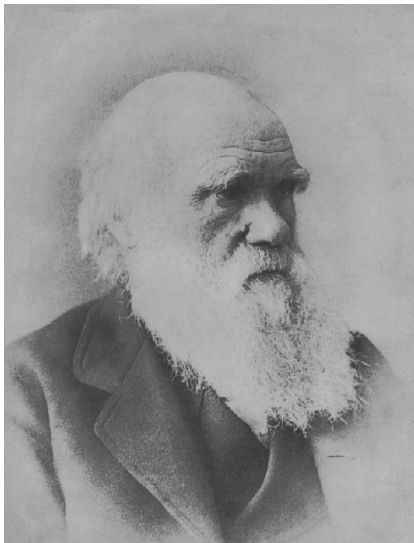
Leading Disruptive/Complex Change



Conclusion

Leading Change

“It is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change.”



Charles Darwin
On the Origin of Species*
Nov 24, 1859

***On the Origin of Species by Means of Natural Selection, or the Preservation of Favoured Races in the Struggle for Life.**



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Conclusion

Leading Change

“If you don’t like change,
you’re going to like
irrelevance even less.”

General Eric Shinseki
US Army (retired)



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Thank You !!

