



CONSENSUS POINT

Effective Enterprise Markets: *What makes them work and Why*

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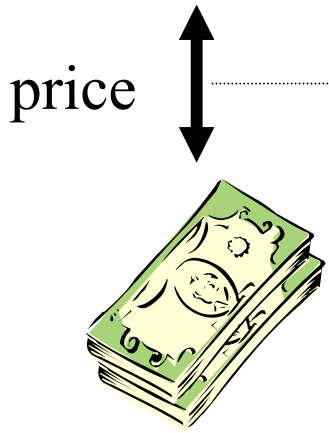
Agenda

- Introductions
- What makes Enterprise Markets work
- Why markets as a medium for predicting the future
- Enterprise Do's and Don'ts
- Discussion

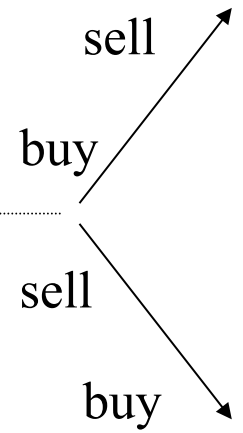
What Makes Markets Work

Buy Low, Sell High

“Pays \$1 if Obama wins”



Will price rise or fall?



$E[\text{price change} \mid ??]$

Lots of ?? get tried, price includes all!

What Makes Markets Work

Example: Current Event Prices

- 70-71% Republicans win US House in 11/2010
- 42-47% California legalizes marijuana in 11/2010
- 6-16% California credit default by 2011
- 10-20% US overt strike on N. Korea by 4/2011
- 24% US or Israel overt strike on Iran by 2012
- 10-19% US Sup. Court bans med. mandate by 2012
- 16-18% Palin is Republican nominee in 2012
- 11-30% Japan says it has nuke by 2013
- 45-48% US Cap & Trade system by 2013
- 12-14% China war act on Taiwan by 2013
- 15-38% Higgs Boson seen by 2014

What Makes Markets Work Beats Alternatives

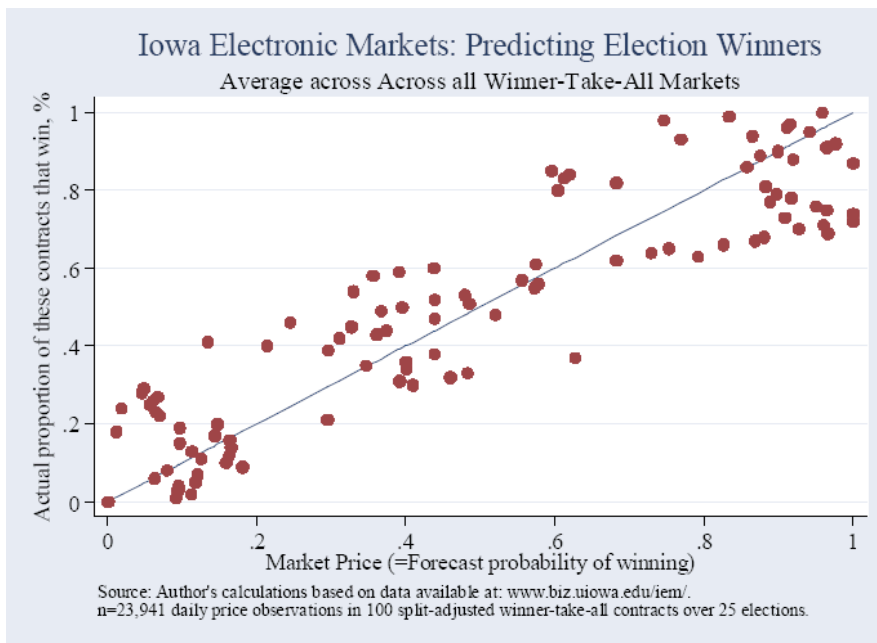


- Vs. Public Opinion
 - I.E.M. beat presidential election polls 709/964 (Berg et al '08)
 - Re NFL, beat ave., rank 7 vs. 39 of 1947 (Pennock et al '04)
- Vs. Public Experts
 - Racetrack odds beat weighed track experts (Figlewski '79)
 - If anything, track odds weigh experts too much!
 - OJ futures improve weather forecast (Roll '84)
 - Stocks beat Challenger panel (Maloney & Mulherin '03)
 - Gas demand markets beat experts (Spencer '04)
 - Econ stat markets beat experts 2/3 (Wolfers & Zitzewitz '04)
- Vs. Private Experts
 - HP market beat official forecast 6/8 (Plott '00)
 - Eli Lilly markets beat official 6/9 (Servan-Schreiber '05)
 - Microsoft project markets beat managers (Proebsting '05)



What Makes Markets Work

Example: Iowa Electronic Market



Item	1988	1992	1996	2000	2004	All
# big polls	59	151	157	229	368	964
Poll "wins"	25	43	21	56	110	255
Market "wins"	34	108	136	173	258	709
% Market	58%	72%	87%	76%	70%	74%
P-value	0.148	0.000	0.000	0.000	0.000	0.000

"Prediction Market Accuracy in the Long Run"

Joyce Berg, Forrest Nelson and Thomas Rietz, Jan. 2008.

Why Markets as a Medium for Forecasting

Advantages

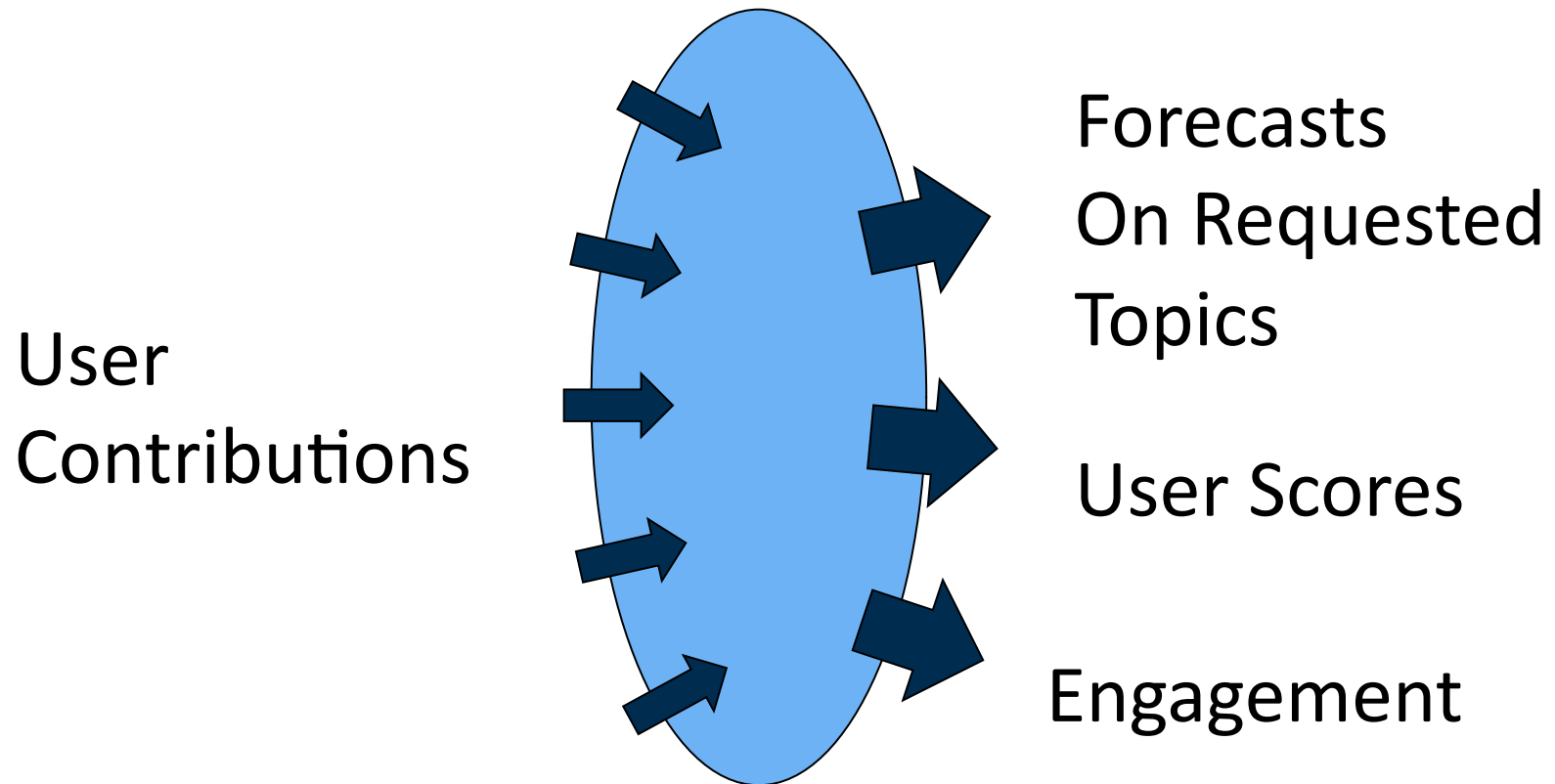
- Numerically precise
- Consistent across many issues
- Frequently updated
- Hard to manipulate
- Need not say who how expert when
 - Issue is *not* experts vs. amateurs
- At least as accurate as alternatives

Incentives
Self-Selection
Correct Biases

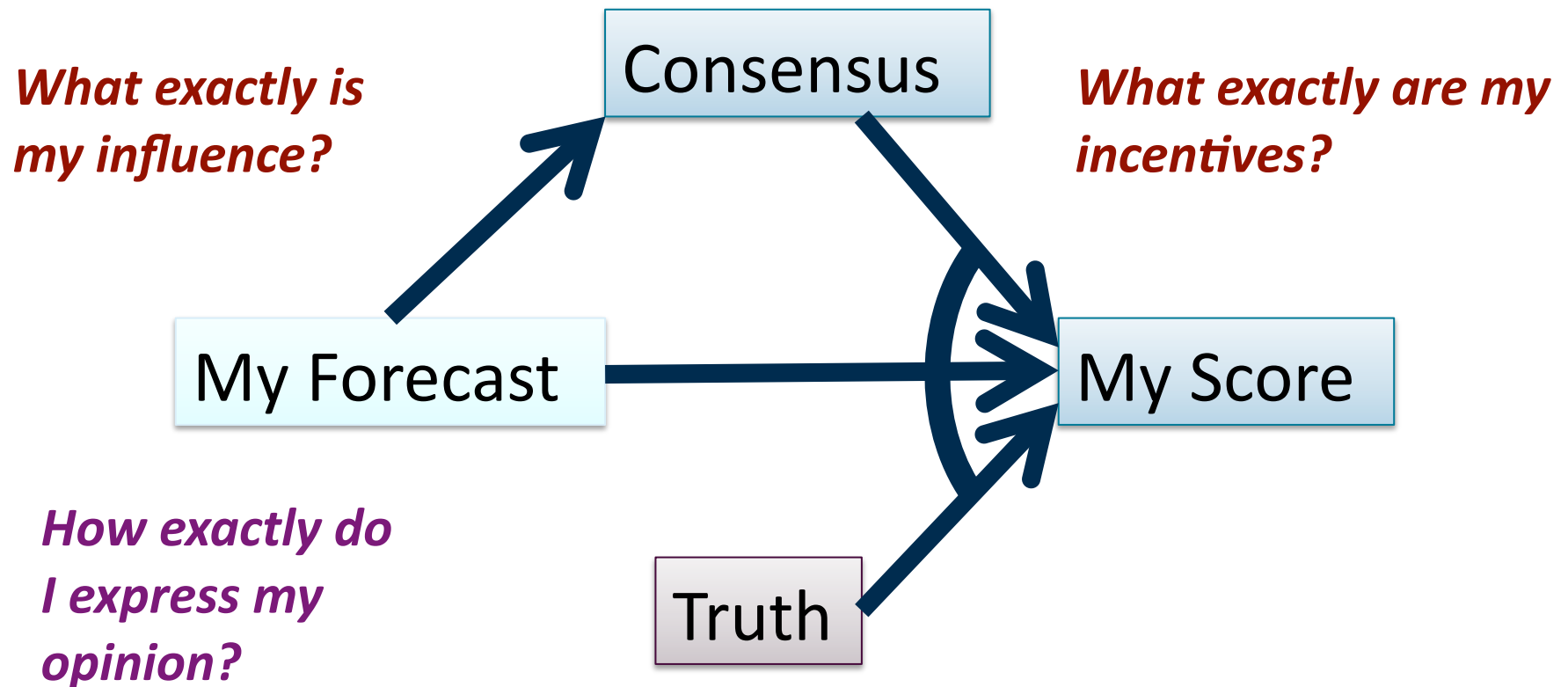


Why Markets as a Medium for Forecasting

Collective Forecasting

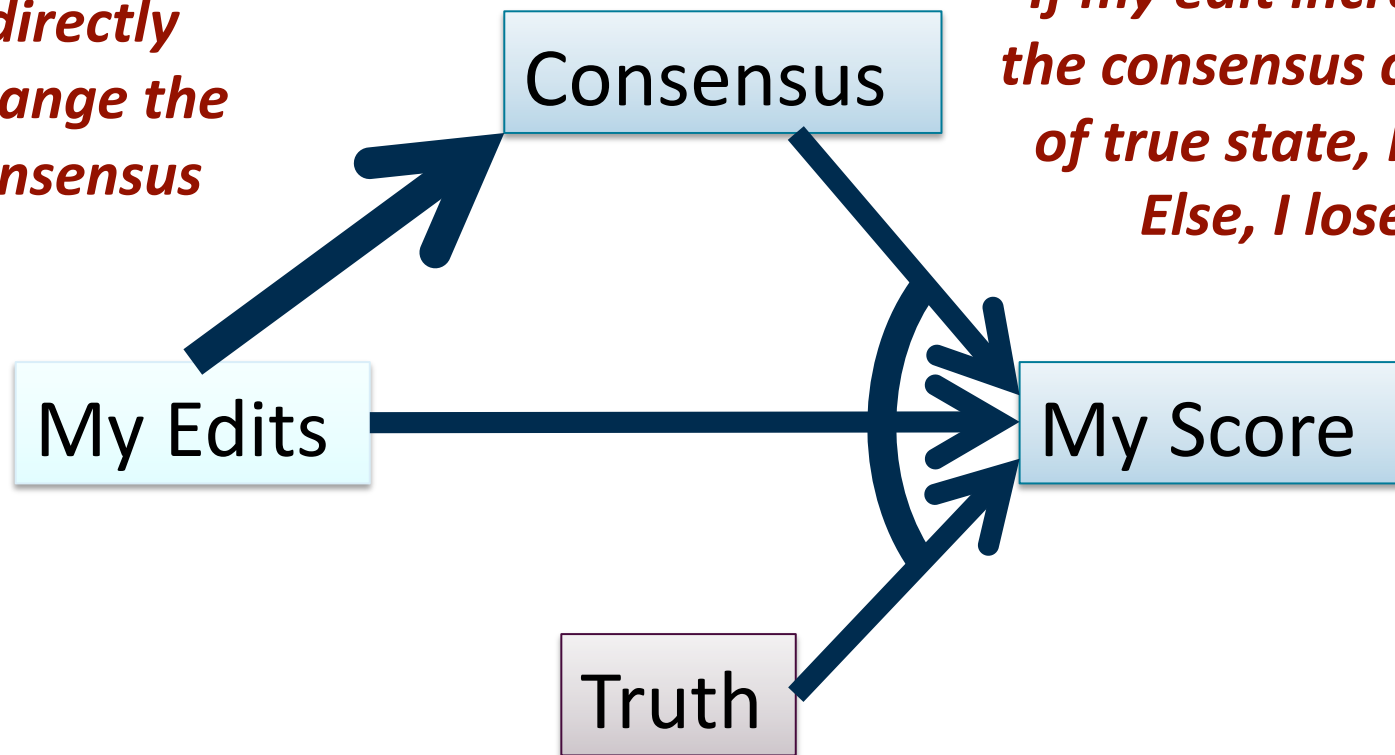


Why Markets as a Medium for Forecasting Collective Forecasting Questions



Why Markets as Medium for Forecasting Editing Interface Is Transparent

*I directly
change the
consensus*



*If my edit increases
the consensus chance
of true state, I win.
Else, I lose.*

Why Markets as Medium for Forecasting Factors Might Influence Sales

$E[\text{Sales} | \text{Factor}]$
 $P[\text{Factor}]$

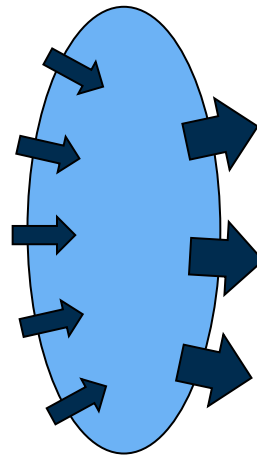
- Economy recovers fast?
- Competitors introduce new version?
- We do big promotion?
- We lower prices? They lower prices?
- We add distribution channel?
- We add feature F? They add feature F?
- Our defect rate very low?



Why Markets as Medium for Forecasting Issues

Input: Contributions

- *What info can express?*
- How account for costs?
- Who let in where?
- Enough Incentives
 - T-shirts enough?
 - Zero-sum scoring?
- Limit Costs
 - Awkward Interface
 - Wait for offer accept
 - Retribution



Output: Forecasts, Scores

- *What questions can ask?*
- How account for value?
- Use or validate system?
- Should adjust outputs?
- Who let see outputs?
- Sabotage & manipulation
- Legal, P.R. risks?



Why Markets as Medium for Forecasting Requirements

Use:

- **Questions** *really* want answered now
 - Will eventually know answer (or parts)
 - Suspect not getting frank info via usual channels
 - Don't mind participants knowing best estimates
- **People** who have or can get key info
 - Their time is the main cost
 - Little penalty for invite many don't know
- **Incentives** to entice careful participation
 - Money, attention, influence can legally offer
 - Valued when questions answered

Validate:

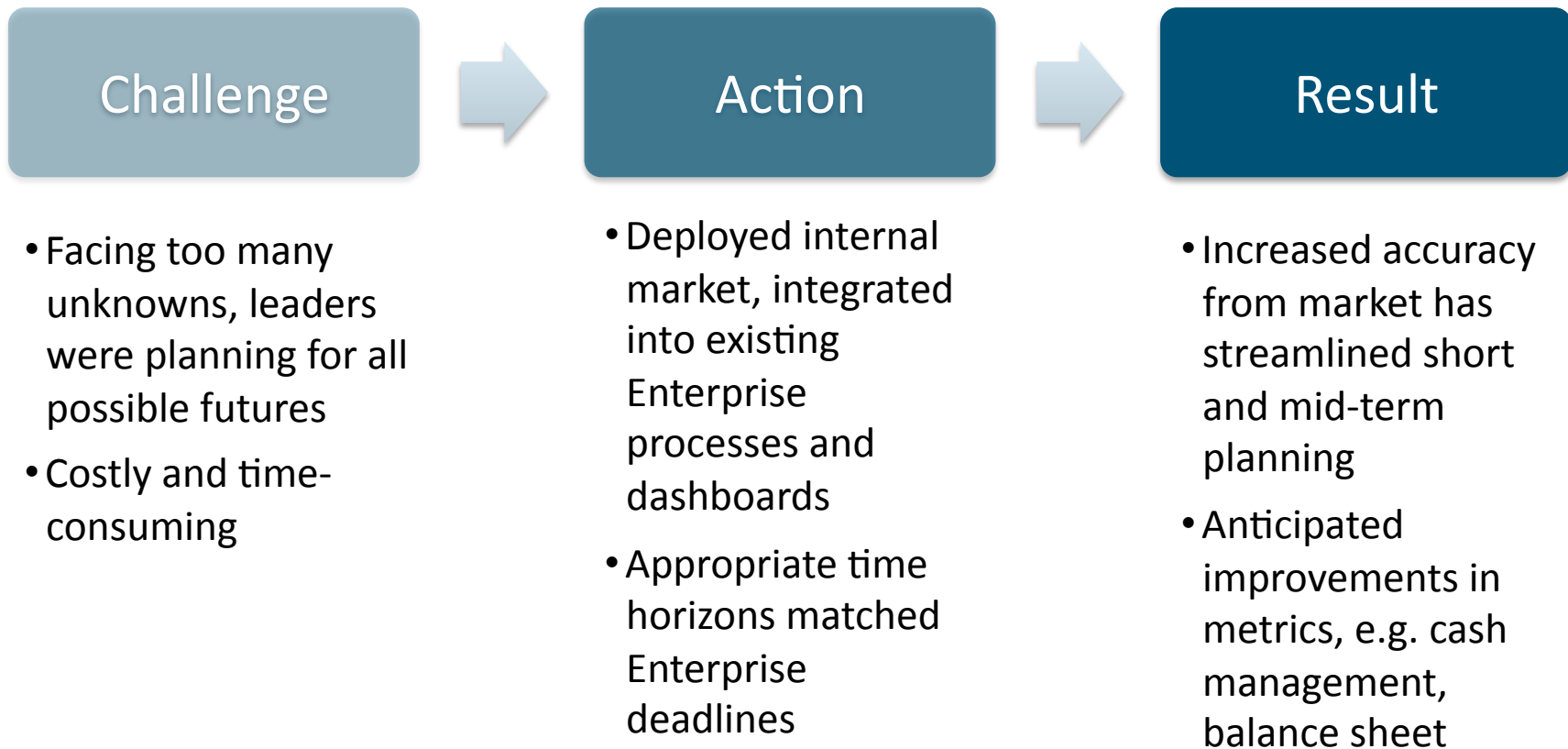
- Many fast questions, status quo estimates



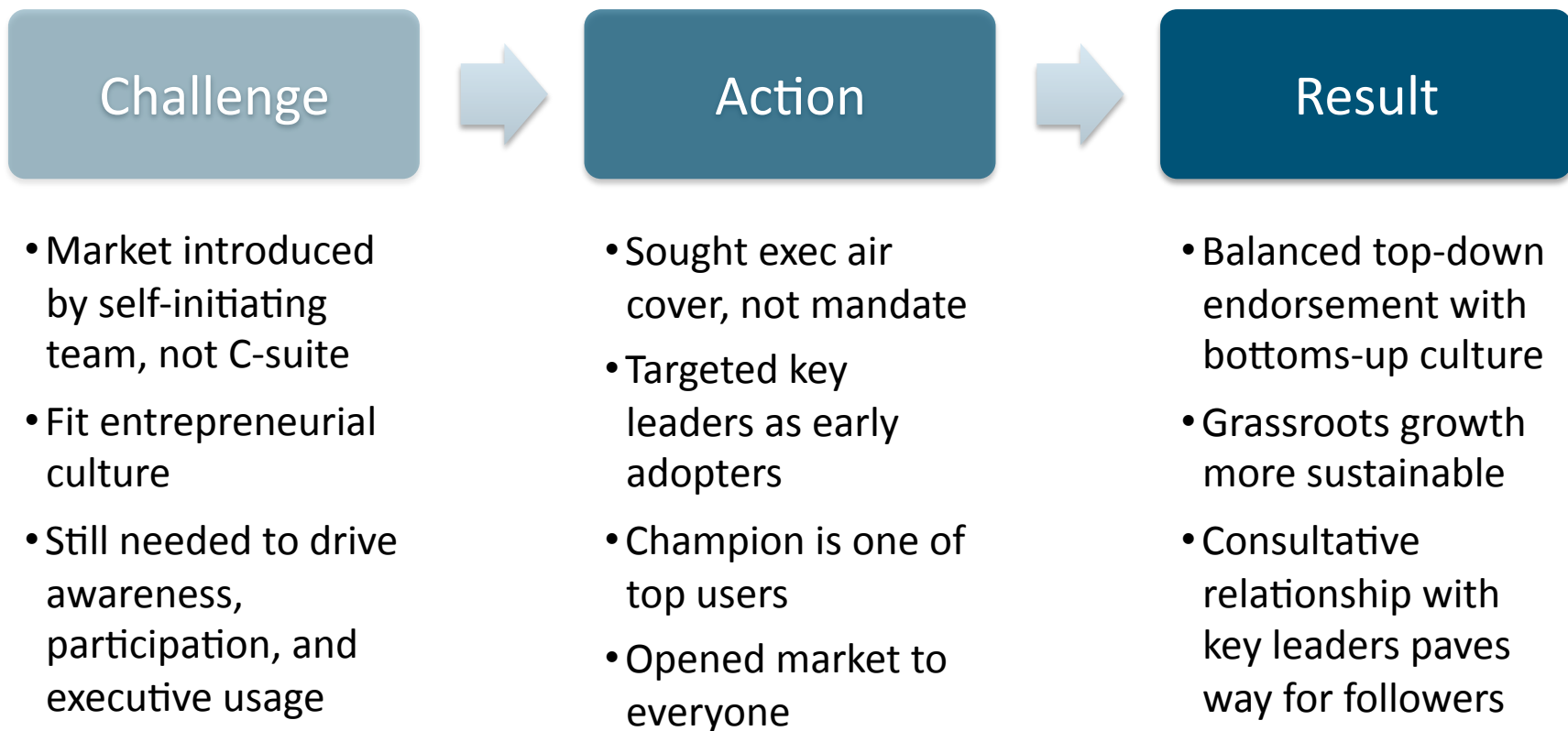
Enterprise Do's and Don'ts of Enterprise Markets

- Do
 - Integrate into Enterprise processes
 - Nurture executive sponsorship
 - Make accessible to all
 - Customize to your business
 - Make it Part of your Value Prop

Integrate Into Enterprise Processes



Nurture Executive Sponsorship



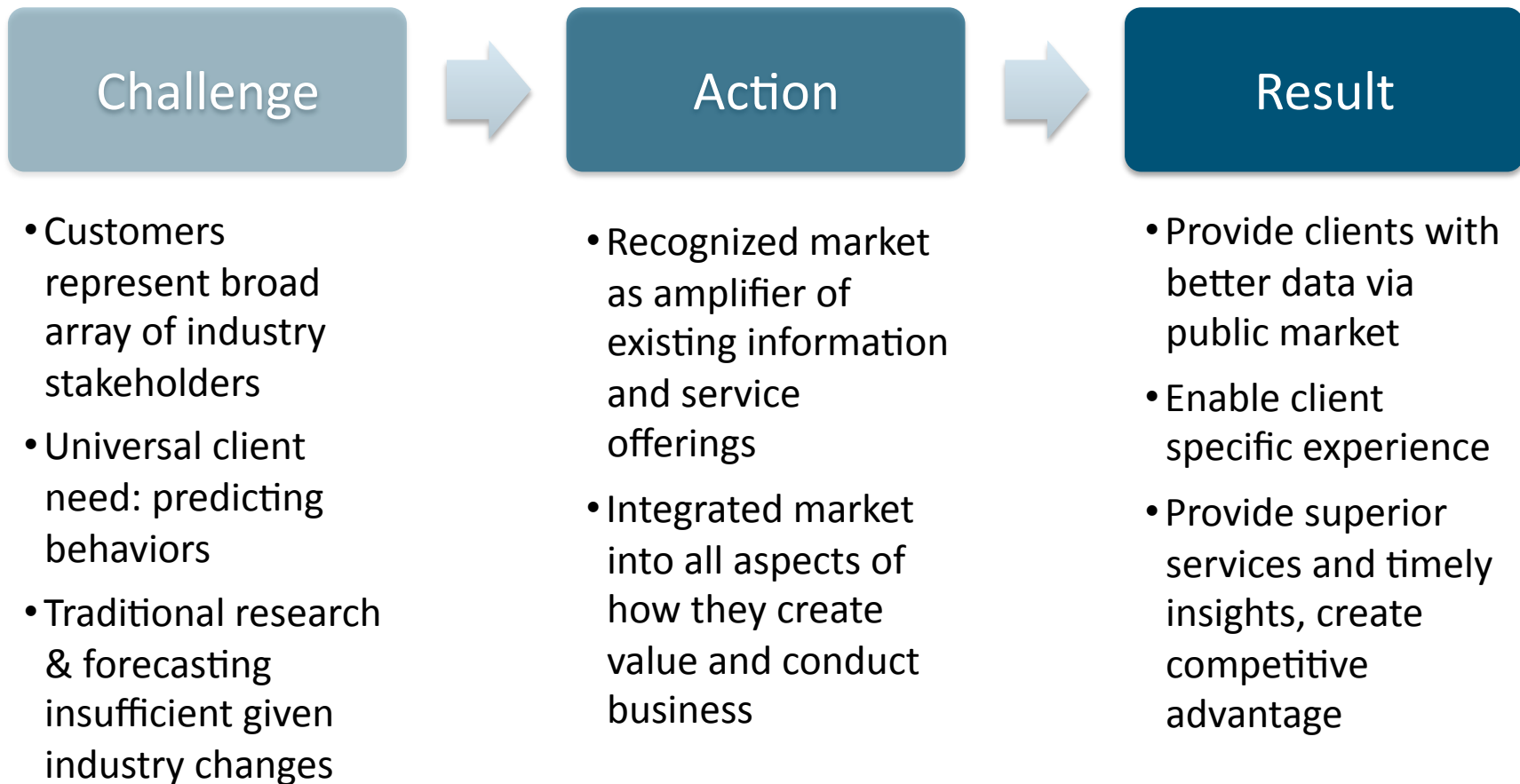
Make It Accessible To All



Customize It to Your Business



Make It Part of Your Value Prop



Enterprise Do's and Don'ts of Enterprise Markets

- Don't
 - Run a 30 day pilot
 - Use a similar group of participants
 - Run a market without promoting it
 - Assume leaders will act on insights



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Discussion

