

Compliance,
Conservation and
Code (CCC):
Using BEM for market
transformation

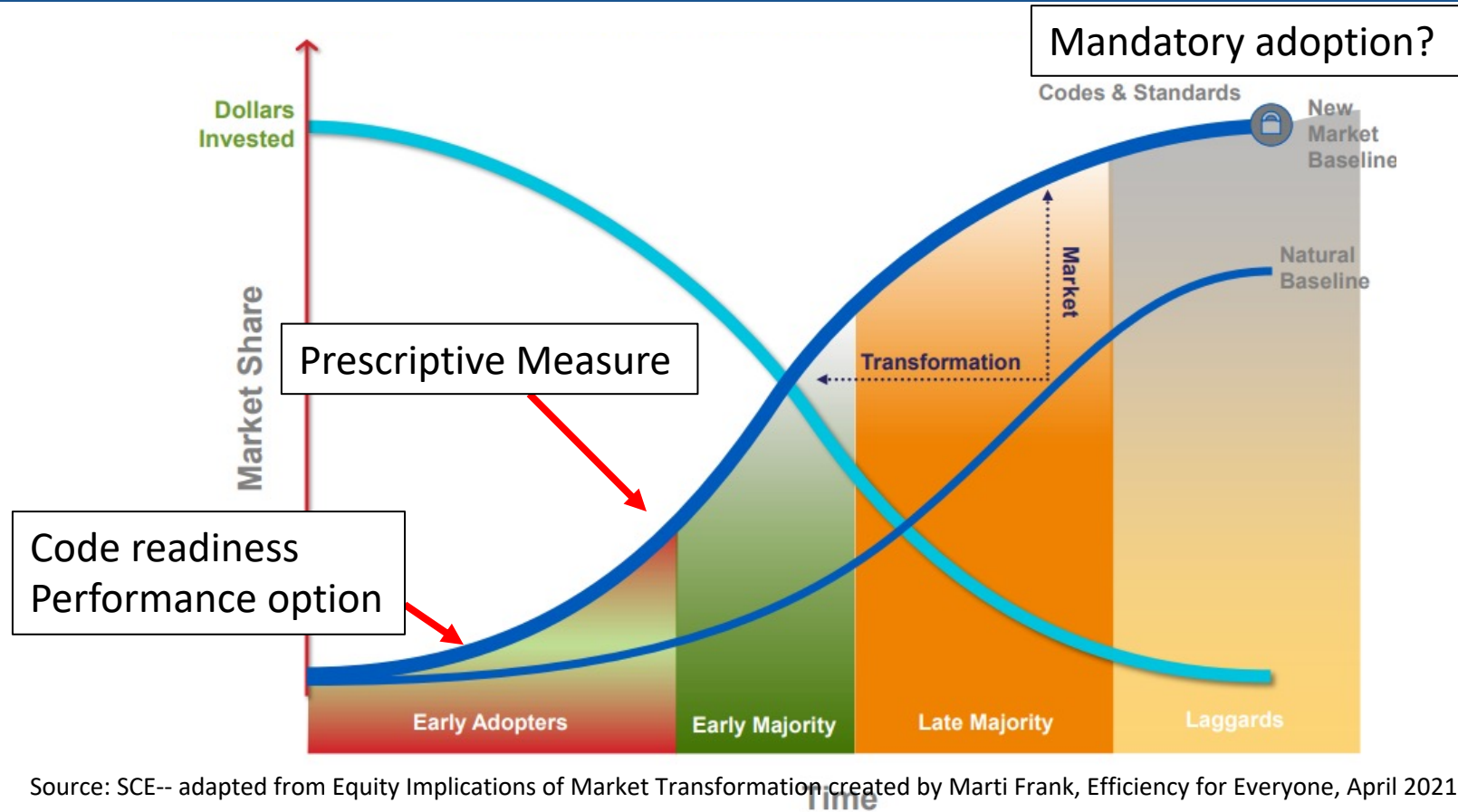
Warren-Alquist Act (1974) Rationale

- Energy Efficiency is biggest no-brainer of all-time
- Numerous market failures and negative externalities

Ergo: Regulatory intervention prudent

→ *Regulatory regime bound by cost-effectiveness*

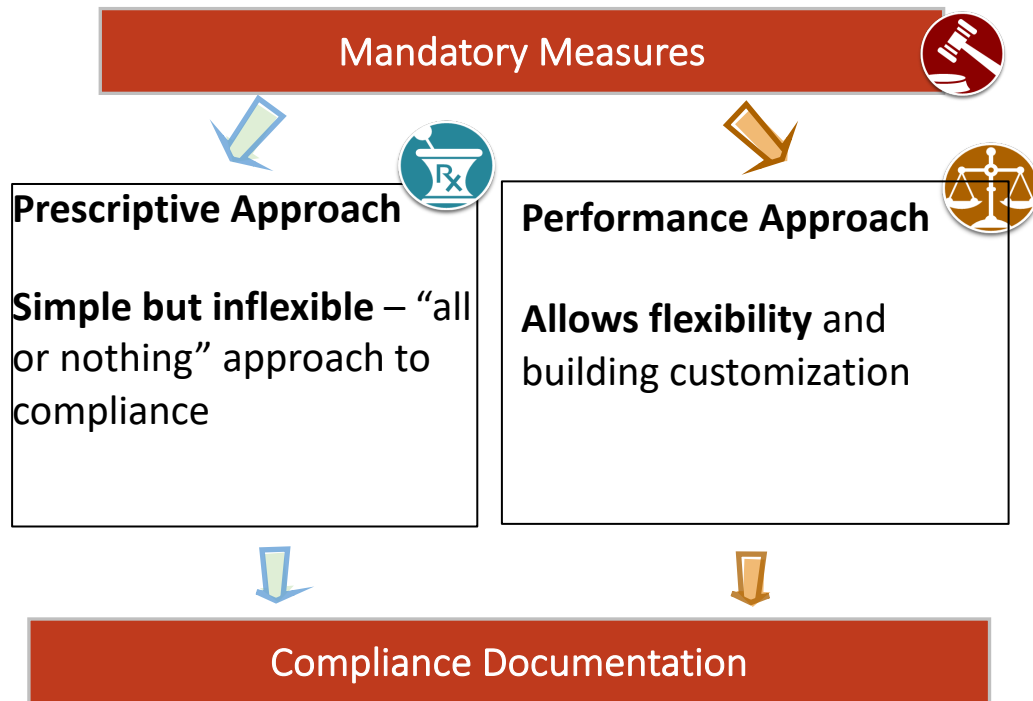
Market Transformation: Paradigm for building standards



Source: SCE-- adapted from Equity Implications of Market Transformation created by Marti Frank, Efficiency for Everyone, April 2021

Energy Code Compliance Flow

Showing Energy Code Compliance (Any Project)



Mandatory:

Mature technology
Always “make sense”

Prescriptive:

Measures that are generally cost-effective
Ready for scaling

Performance

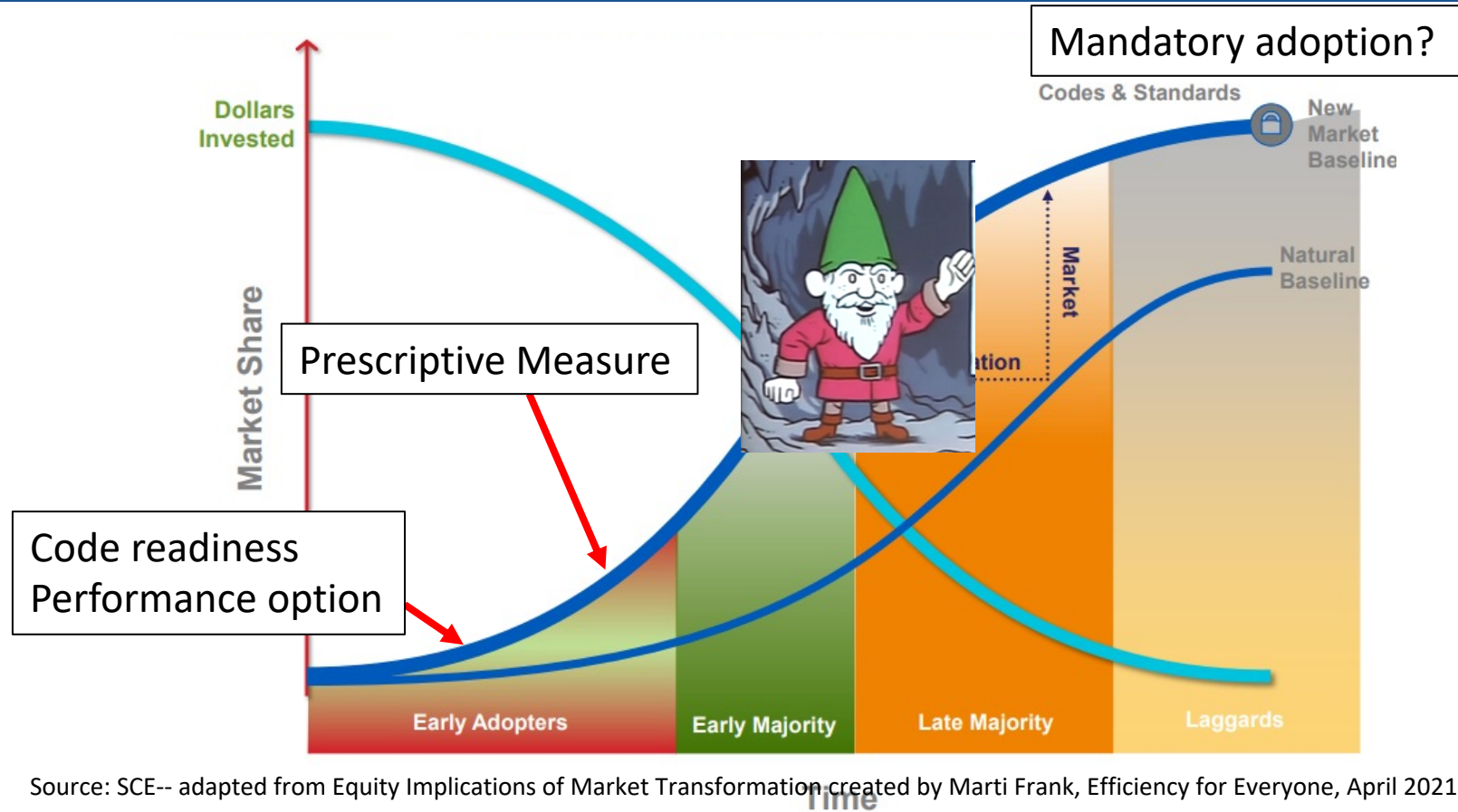
New technologies
Early adopters
Design flexibility for local cost-effectiveness

Market Transformation Successes

- CEC Outreach
 - Emerging Tech programs (CA-ETP, EPIC, GET, ETCC, DRET)
 - CALCTP
 - CALNEXT
 - TECH incentives
 - Energy Code Ace
 - REN education
 - CPUC WE&T
- Etc. etc.

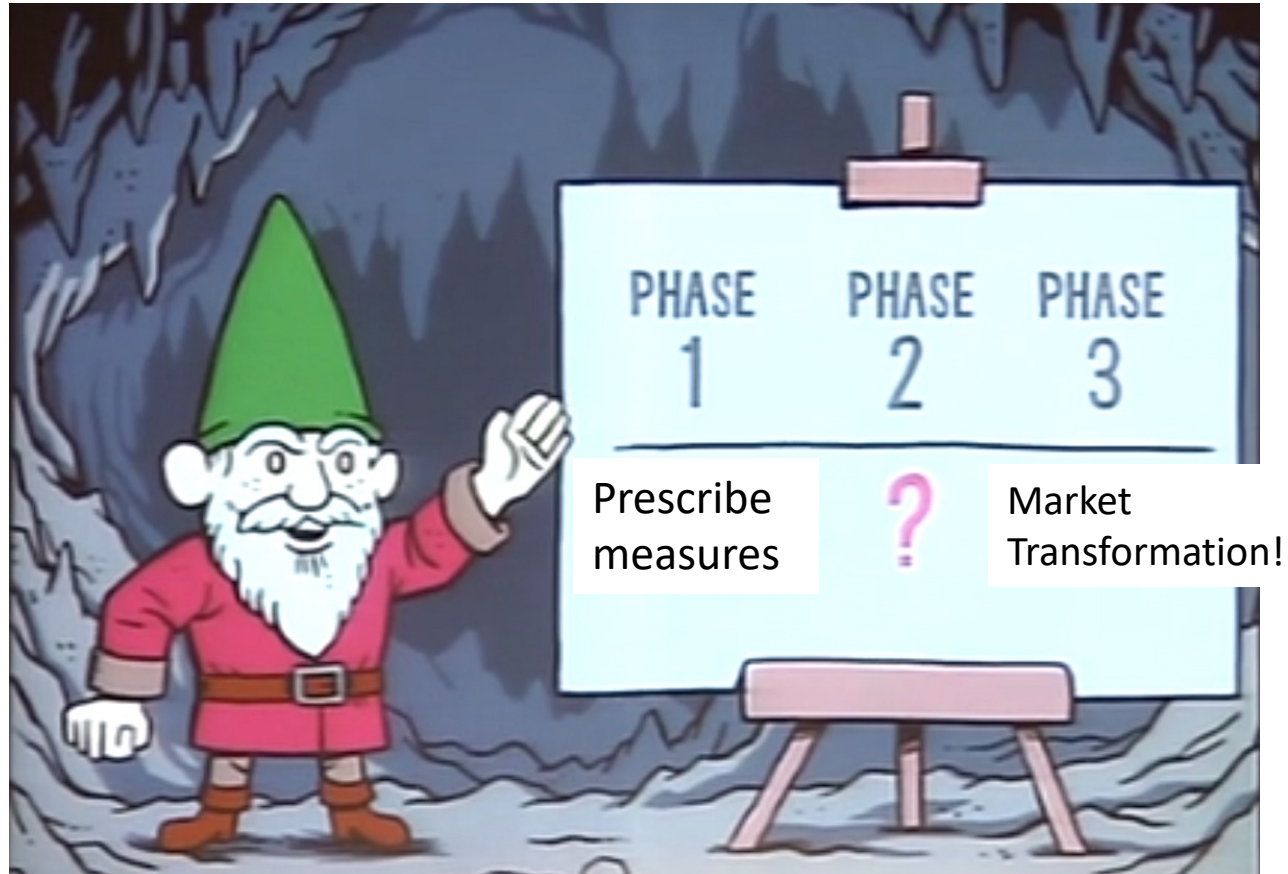
Programs for code compliance?

Market Transformation: Paradigm for building standards



Source: SCE-- adapted from Equity Implications of Market Transformation created by Marti Frank, Efficiency for Everyone, April 2021

Market Transformation Gnomes!





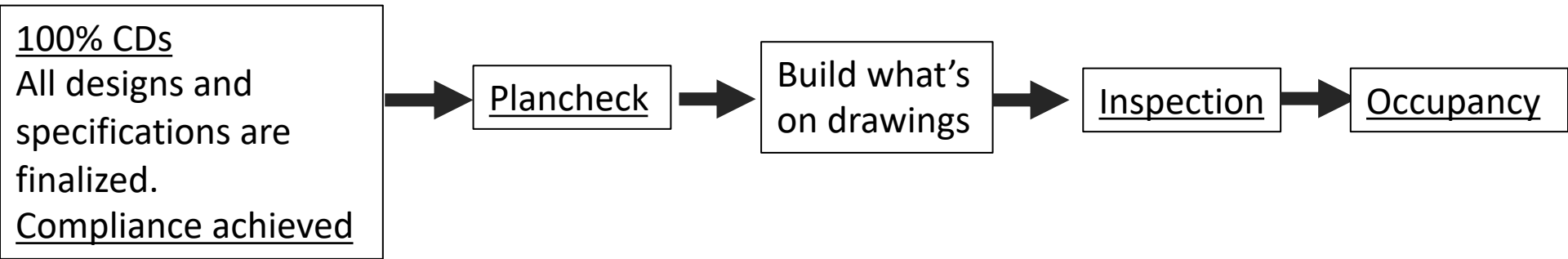
Credit: Adobe Firefly AI

Energy Efficiency is an optimization

BEM is an evaluation (of trade-offs)

Energy Code Compliance is a negotiation

Ideal Compliance



Negotiation phase 1

Schematic/DD/CD phases

Pre-permit negotiation:

- Starchitects
- **Rumsfeldian epistemology** → WAGs



Permit application
*More Rumsfeldian
epistemology*



Negotiation phase 2

Pre-Construction phase
Design phase part 2
Value engineering
Permit Revisions



Negotiation phase 3

Construction phase

Failure of ATT/ECC measures
Re-negotiate compliance



Negotiation phase 4

Pre-Final Inspection
--Failure of ATT/ECC measures
--Audibles in-field → as-builts
--Re-negotiate compliance



C of O!
And hundreds
pages of energy
code
documentation

Two gambits:

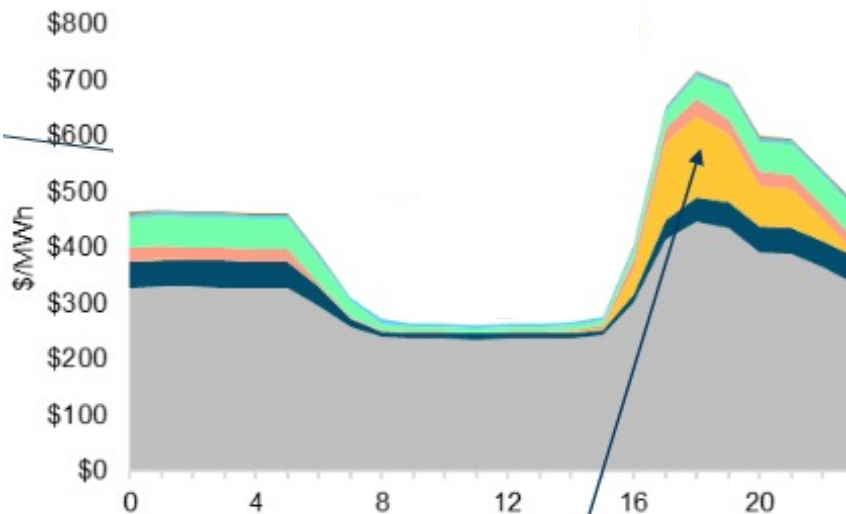
Negotiate compliance because it's a necessary idea

Negotiate a measure because it's a good ideas?

Showing Cost-effectiveness for Owners

LSC savings vs. On-bill savings

2028 CZ9 Hourly Avg LSC



ACCOUNT NUMBER 2100 0180 7740 6

AMOUNT DUE

No Payment Due

Summary of Current Charges

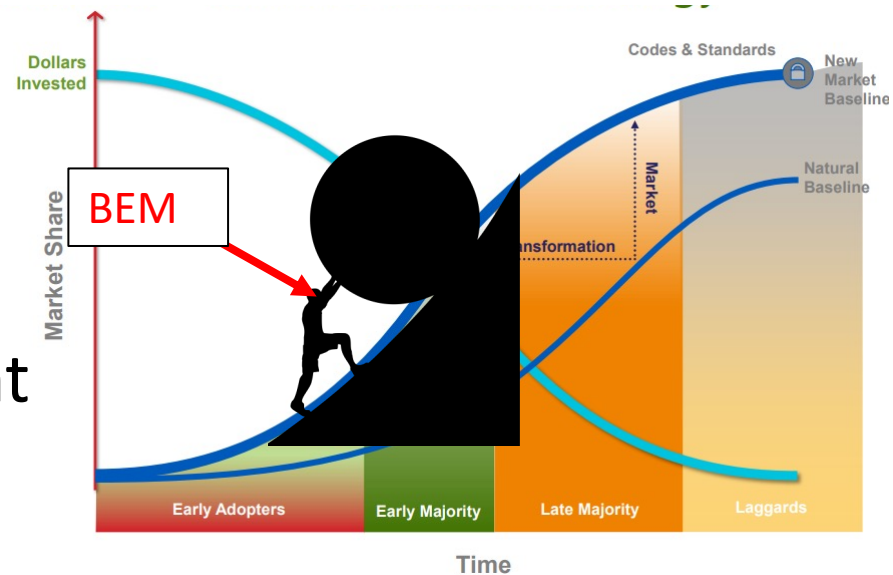
(See page 3 for details)

	Billing Period	Usage	Amount(\$)
Electric Delivery	Aug 18, 2025 - Aug 29, 2025	69 kWh	12.14
Electric Delivery	Aug 30, 2025 - Sep 30, 2025	131 kWh	23.02
Electric Delivery	Oct 1, 2025 - Oct 30, 2025	22 kWh	26.53
CCA Electric Generation			46.16
Other Charges and Credits			-75.53
Total Charges this Month			\$32.32

Source: E3 2028 Energy Accounting
Workshop August, 28th, 2025

Other challenges to Storytelling

- Conflicts with other codes and standards
- Trades and training
- Market challenges
- Code inscrutability
- CASE Stakeholder engagement
- AHJ engagement
- Compliance/ACM limitations



Storytelling...



Storytelling...



1. It's WRONG

Pausing the energy code:

Stops CEC from promulgating more measures that lower housing costs.

Storytelling...



California Assembly
Select Committee on
Permitting Reform
Final Report - March 2025

But vibes...

*Christopher Ackerman-Avila
Advisor to SD Mayor*

Lastly, I'd like to very briefly touch on potential areas for improvement. The **California Building Code is remarkable**, and it helps us meet our climate goals, **but it also certainly adds cost to housing.** The state must explore the intersection of reducing carbon emissions and reducing costs.

Storytelling...

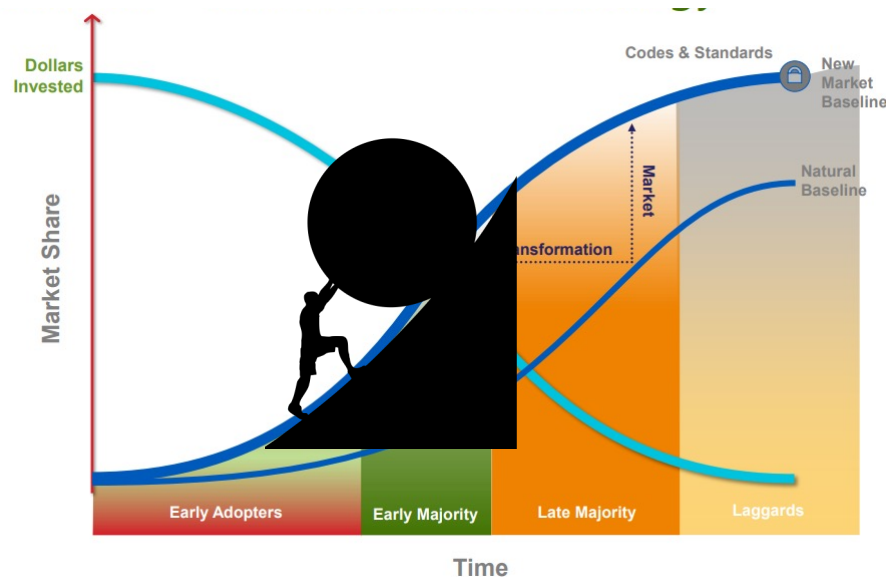


1. It's **WRONG**
2. It's **NOT WRONG**

Improving the negotiating position

The market responds to the code...

But does the code learn from the market?



California FORWARD



*Too many perceive the codes as a weapon
of math obstruction*

*How do we convince them that it's a tool
for mass construction?*

