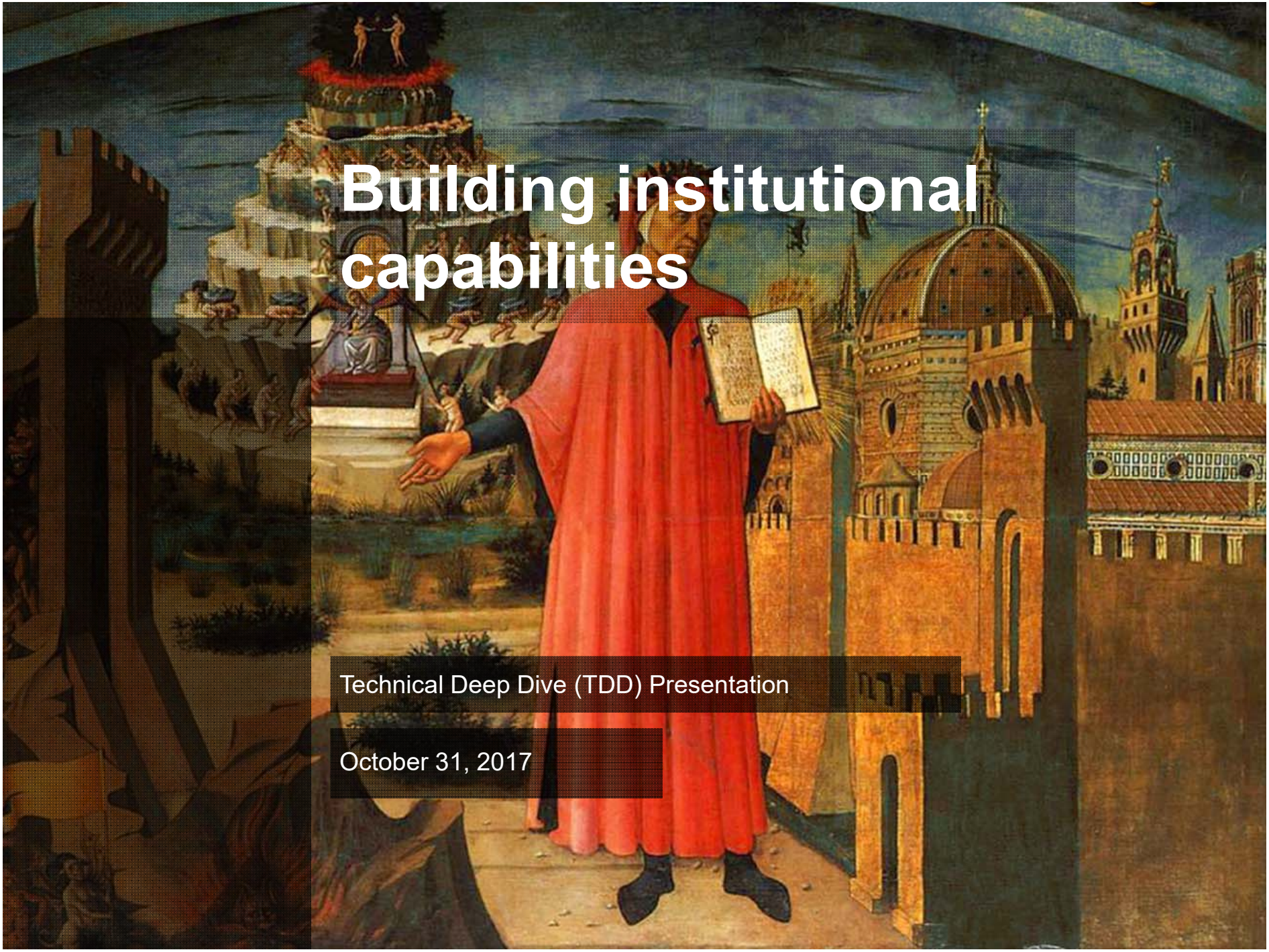


Building institutional capabilities

Technical Deep Dive (TDD) Presentation

October 31, 2017

1 Introduction

2 Mechanics

3 Information & incentives

4 Citizens & learning

5 Getting started

SOUND FAMILIAR?

"What the city just needs is better coordination"

"Okay and how do we do that?"

"You just break down the siloes"

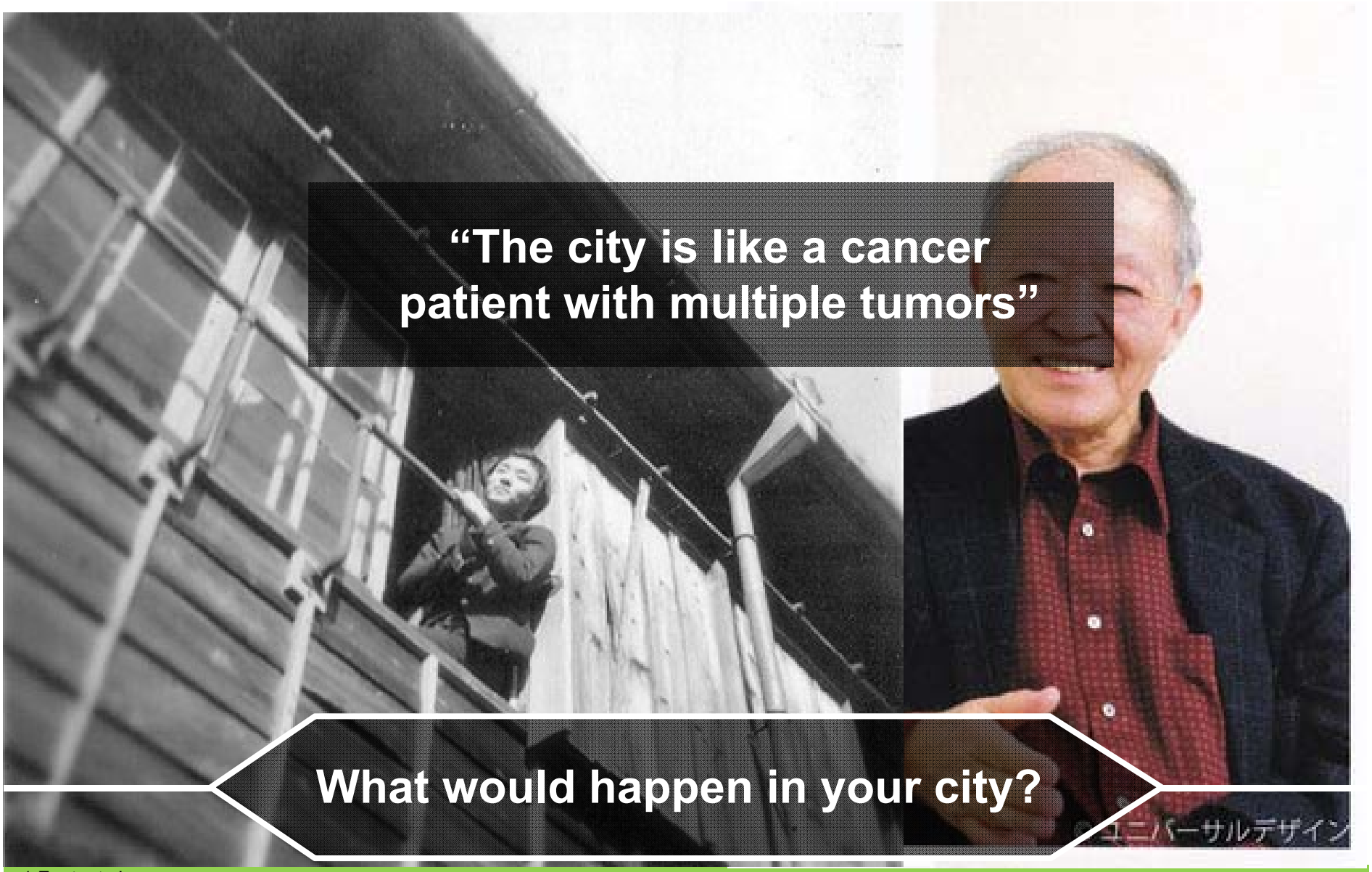
"Okay and how do we do that?"

"You just get people working together."

"You think we haven't tried that?"

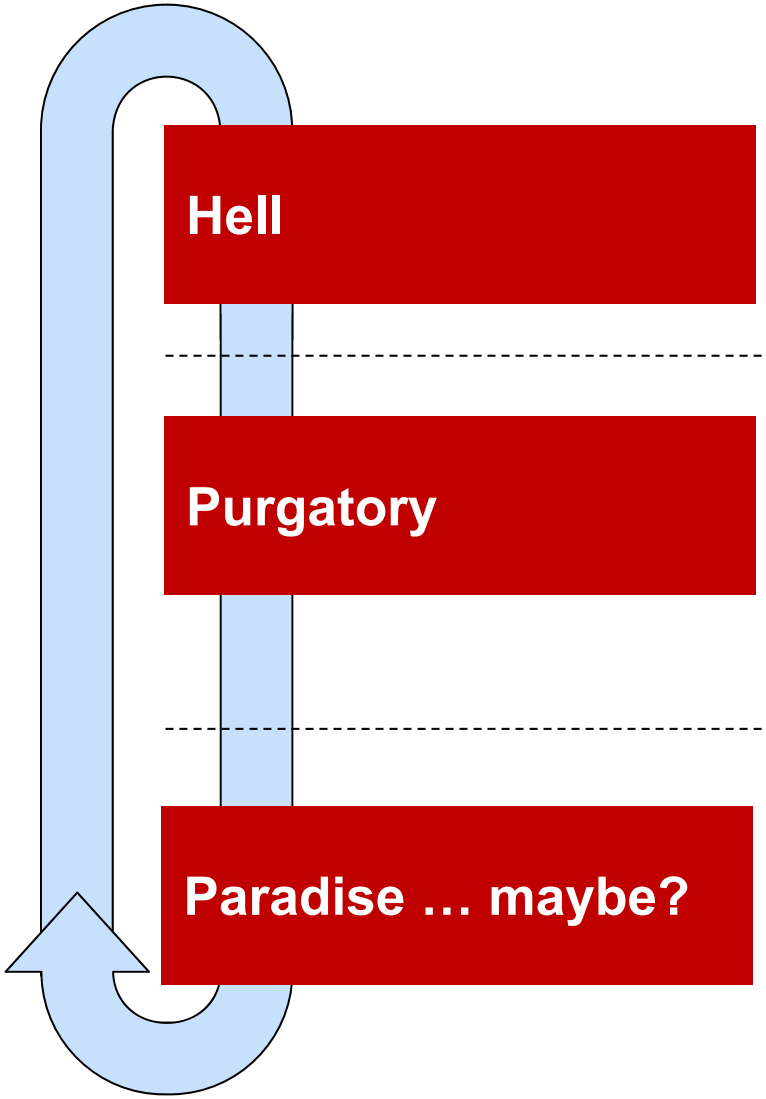
"It just needs political will. Oh, and here's my invoice."

AND THIS?



1 Footnote here
SOURCE: [ABC]

CAPABILITY BUILDING IN THREE STAGES (BUT NO HAPPY ENDING)



Problem	Response
▪ Meetings ▪ Procurement	▪ Sweat the small stuff
▪ Discipline vs autonomy ▪ Interconnecting systems	▪ Information and incentives
▪ Deep uncertainty about the future	▪ Learning ▪ Citizens

MEETINGS: THEY MATTER

“Anyone can run a meeting, it’s just common sense”

Vs …

- Meetings are the **conveyor belt of administration**
- Elite private sector companies **train heavily in the skill of running a meeting** (e.g. **~50% of training time spent on roleplays**)
- In Yokohama, **Tamura’s first action was to change meetings** – from how they were run to the furniture they ran on, including the desk
- If **last-minute cancellations or no-shows** are part of the culture, and meetings are run badly when they do happen, the rest may be pointless

If your meetings are broken, it’s unlikely much else will work

ROUTINE PROCUREMENT AND HIRING

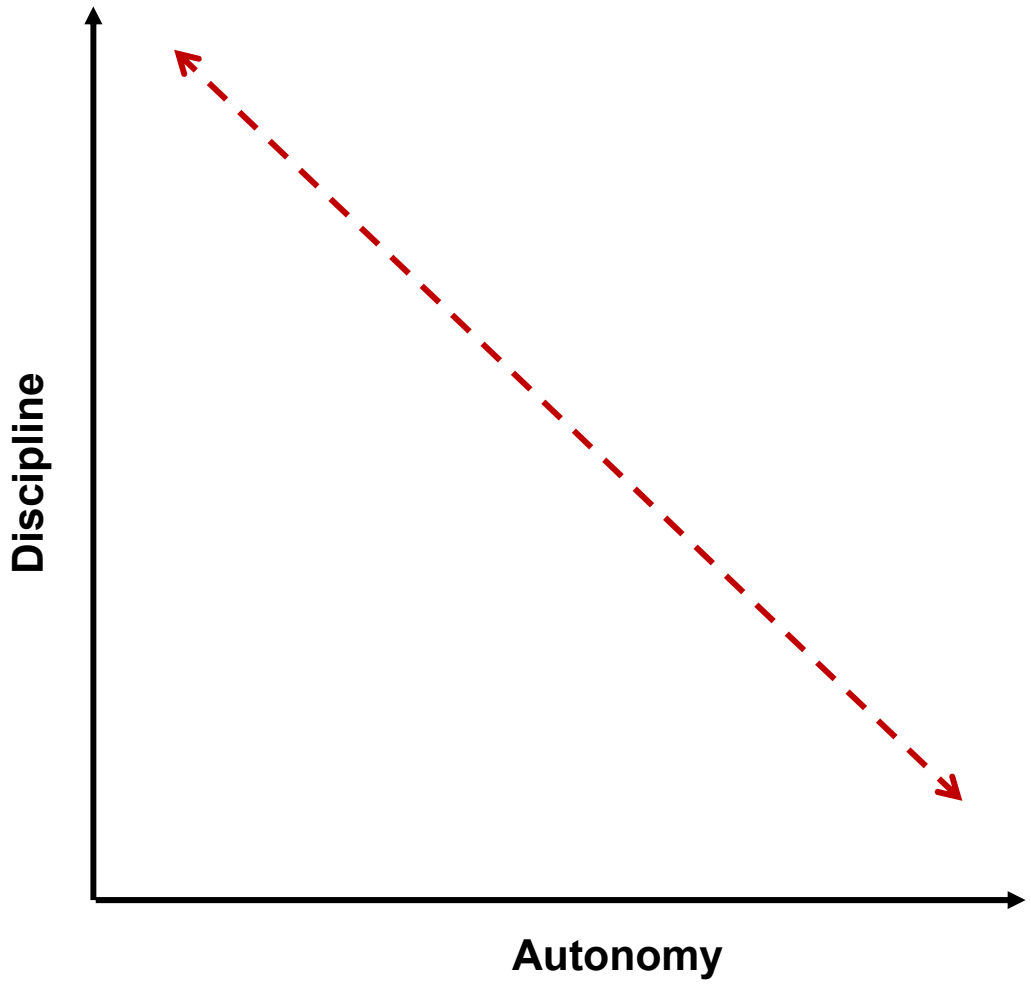
"When you think about it, most of the time government is about buying things and hiring people" – World Bank governance TTL

"Don't worry, one day they'll have the MFMA (procurement regulation)" – South African city leader, looking at Shanghai skyline

- If procurement, hiring, asset management take very long then, for example, **by the time a technical study is done it may be irrelevant**
- May be constrained by national regulation, but **city's own culture & resources play a big role**—e.g., **consequences (or not) for a support dept** not providing accurate inputs
- When it works, it's a key enabler:
  - **Sophisticated land management** in Kobe rested on **asset disposal by the city being a "solved problem"**, quick, transparent and with strong checks
  - **Private sector companies** say of Yokohama today, "**we do projects there because we know it will get done**"

A DIVERSION THROUGH THEORY: THE TRADE-OFF IN DISCIPLINE VS AUTONOMY

Classic trade-off in public management



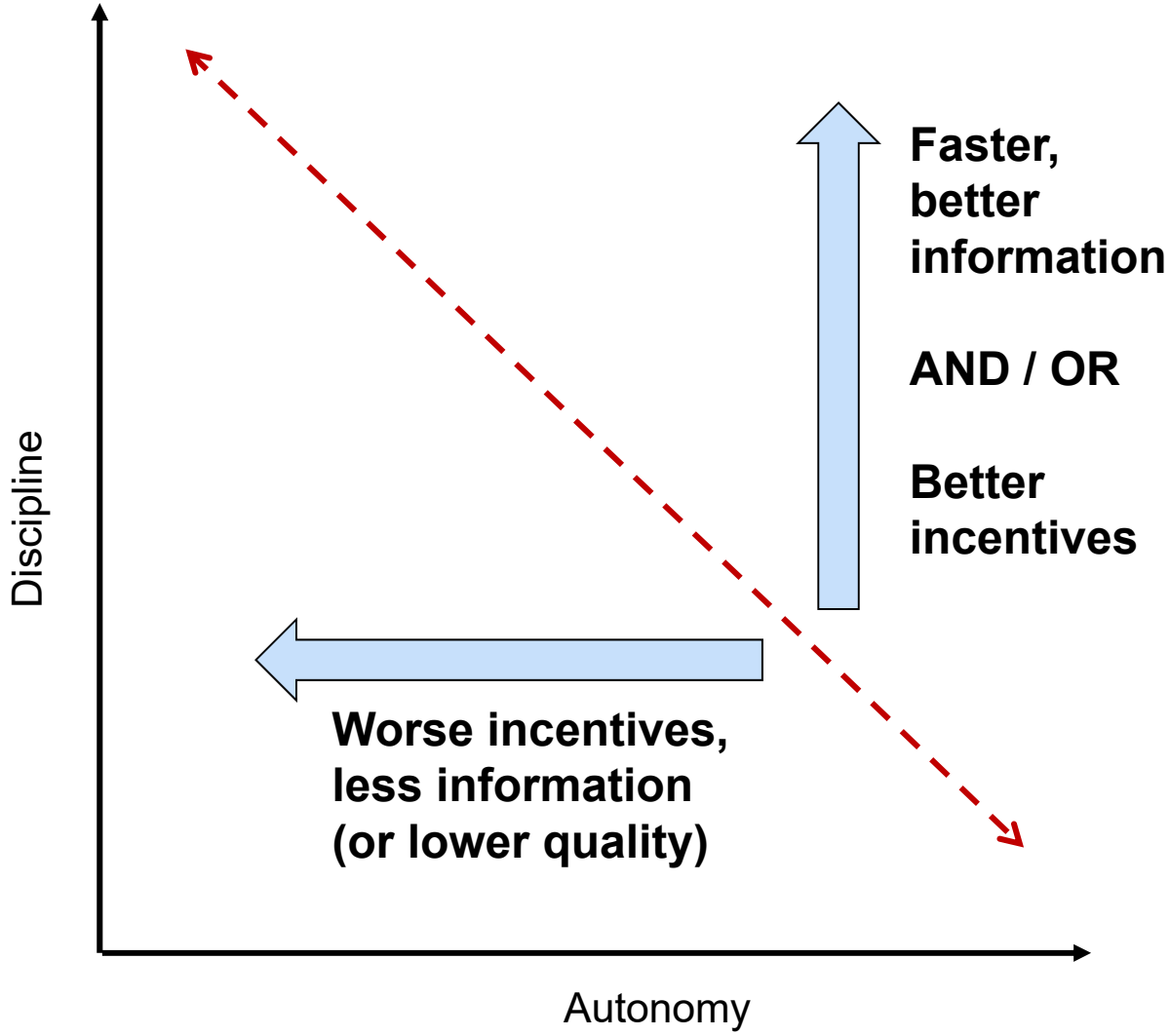
Becoming more acute?

- Increasing citizen and private sector demands
- Increasing fragmentation
- Both raise the premium on autonomy, which allows greater speed and fitting to context
- But … increasing transparency, public pressure raise the price of failures of discipline

INFORMATION AND INCENTIVES HELP—BUT CAN ALSO HURT

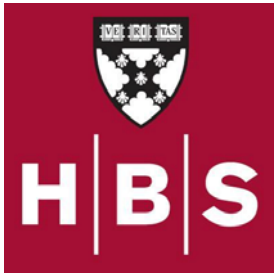
Information is the resolution of uncertainty, where "resolution" means a reduction in doubt to the point that action can be taken

-- Adapted from information theory in maths & physics



WHAT DOES "THE PRIVATE SECTOR" SAY ABOUT THEIR RELATIVE EFFECT?

"The problem with high-powered incentives is that they work" – Head of HR, Apple



"Every incentive can be gamed" – saying at Harvard Business School

"People think we got big by building big in small towns. In fact, we got big by replacing inventory with information" – Sam Walton, founder, Walmart

Within companies, is departmental profit a tool for discipline, or for information?

A TRADITIONAL ANSWER

1. **Specify some targets (don't worry about *ex-ante* knowledge problems)**
2. **Tell people to implement (anyone can do anything with the right incentives)**
3. **One year later (if it's fast), ask people unconnected (independent!) to 'evaluate'**

All three independent with long time-lags

Breaks down in reality

- **Long cycles** – by the time information is received, it's often too late
- **Iterating on one-year or longer rhythm** means a decade on a tough problem
- **Information is extremely noisy**— sources **self-interested or unfamiliar** with the problems
- No matter how good the planning, it will have to change in the face of reality, which means targets have to change
- And so incentives have to change, in a low-information, perennially late system
- **Rock and hard place of "moving the goalposts" and sticking to plans or targets that no longer make sense**

WHEN DO YOU THINK PERFORMANCE CONTRACTS WERE FIRST USED ON A LARGE SCALE?

1. 2000s

2. 1990s

3. 1980s

4. 1970s

5. Earlier

“The prescription for the use of [performance] contracts and annual verifications in the *Han Fei Zi* corresponds to descriptions of actual administrative practice [under the Qin and Han]”

Anything new under the sun?

COMMON, EASY AND INSUFFICIENT ANSWERS

But …

“Political will”, i.e., it’s someone else’s problem

- If information stays poor, just increases fear, and appeals keep travelling up the chain
- Risks a vicious cycle of blame, frustration, more discipline, and despair

“Just get tougher”, i.e., crack some heads

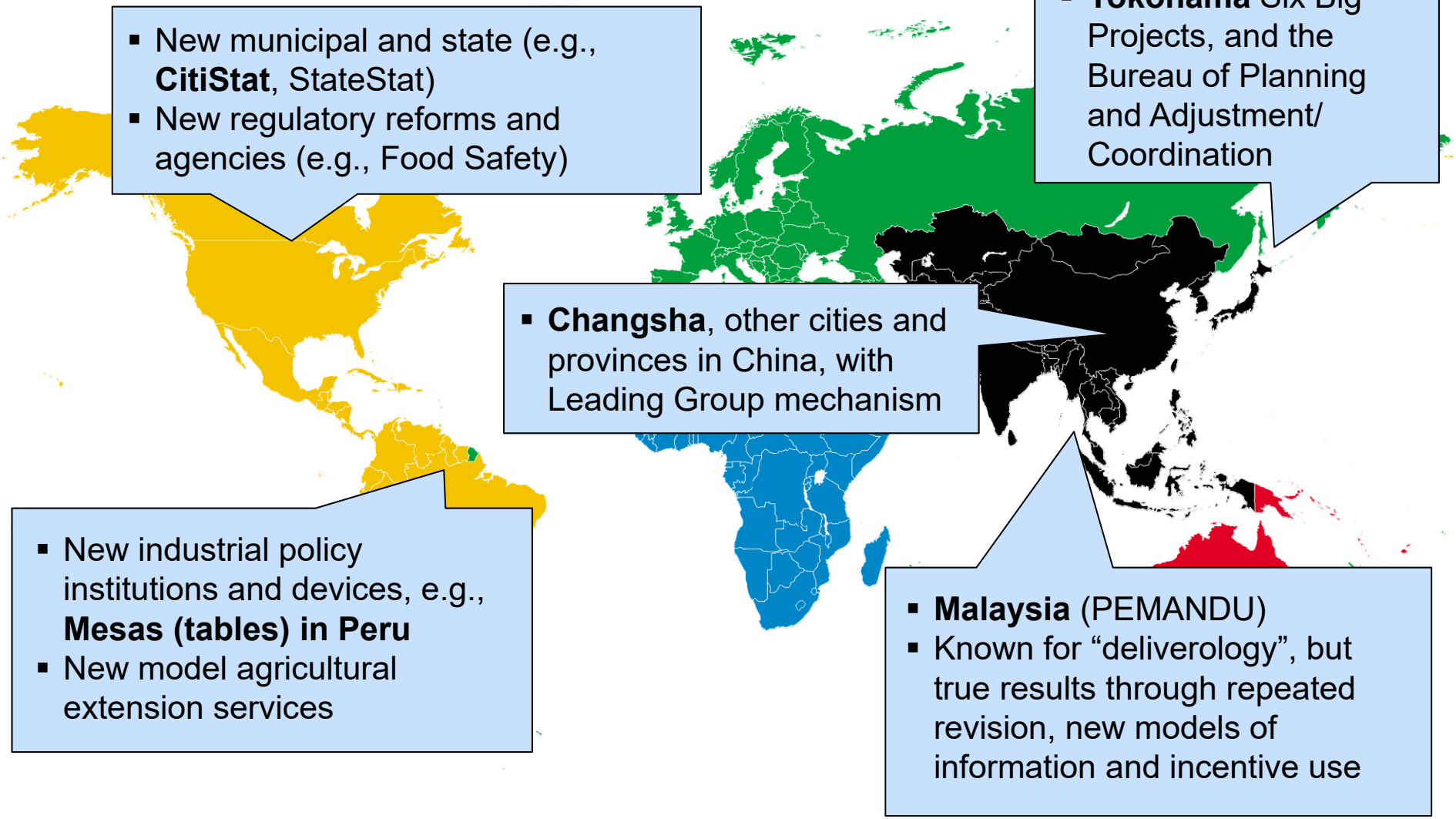
“Just get smarter”, i.e., plan or set incentives better

- All incentives can be gamed, especially on long time-cycles
- Even more vulnerable to uncertainty

“Just ask the private sector”, i.e., someone must know

- Private sector itself – especially those parts of it large enough to be invited to a council – does not know the future

A DIFFERENT KIND OF SYSTEM, IN DIFFERENT FORMS



AT THEIR HEART: INTERTWINING INFORMATION AND ACTION

- System in which action tightly coupled to the production and use of information
- Processing and filtering continuous so system not flooded
- Action taken through means that:
  - ➢ Identify uncertainties
  - ➢ Cycle through resolutions
  - ➢ Cross-pollinate and reuse results

In practice

- Network of implementing bodies—task teams, steering committees, etc
- Goals and targets from central “node”, such as cabinet or central leading group
- Weekly / monthly reports if any targets or goals at risk of not being met in time
- Monthly / quarterly reports about causes of delay or difficulty, or unforeseen opportunities, in a forum that is both deliberative and decision-making
- Goals revised where cause is a misspecified goal, or new opportunity requires new goals
- A high-capacity team coordinates the planning, adjustment and reporting structures necessary to make this work

TOOLS: BUMP-UPS AND PENALTY DEFAULTs

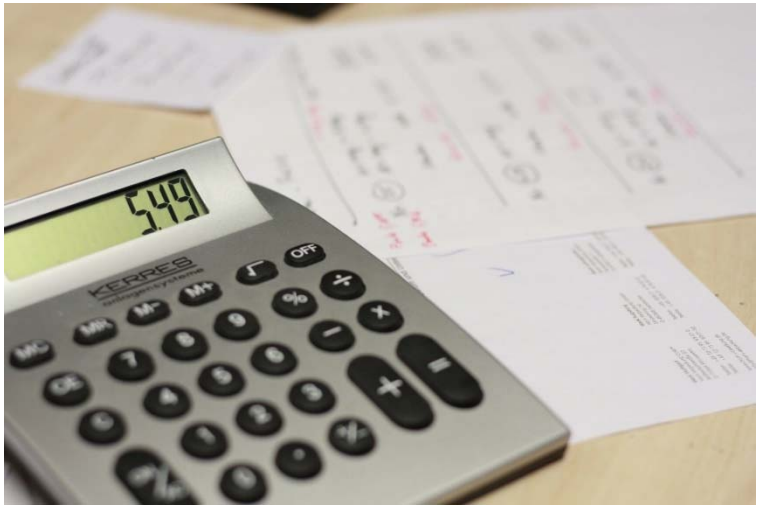
A "Bump up"

- **Nested rhythm of problem-solving councils**
- **Analytical support by office/team/bureau**
- KPIs function is to **ensure the council is convened, without fail**, and is anchored in outcomes
- **Decisions require consensus, and are then *not* referred upwards**
- Failure to reach such consensus leads, without fail, to the issue being referred one level up

B "Penalty default"

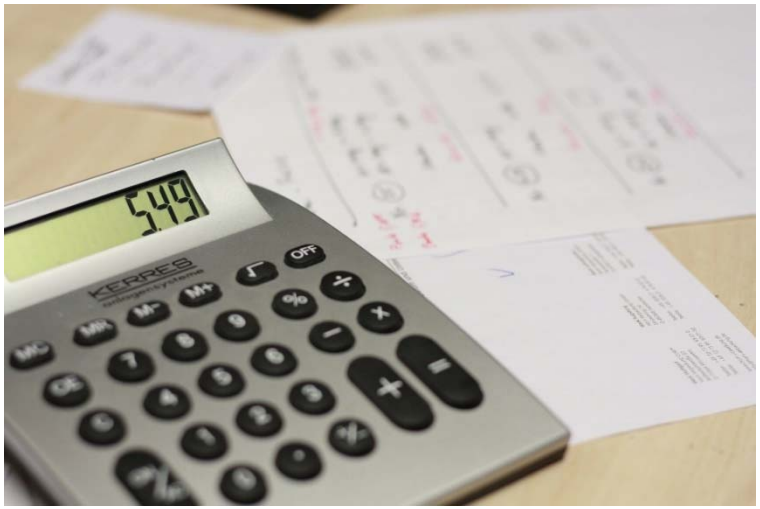
- **Bump up to highest authority if a stalemate proves intractable**
- All participants know **if this occurs, control will be taken away from them** – a decision will be made
- Only intractable stalemates invoke the default–**else the possibility of appeal will undermine lower-level decisions and block the system**
- The more credible it is, the less it has to be used

ISN'T THAT THE SAME?



What do these have in common?

ISN'T THAT THE SAME?



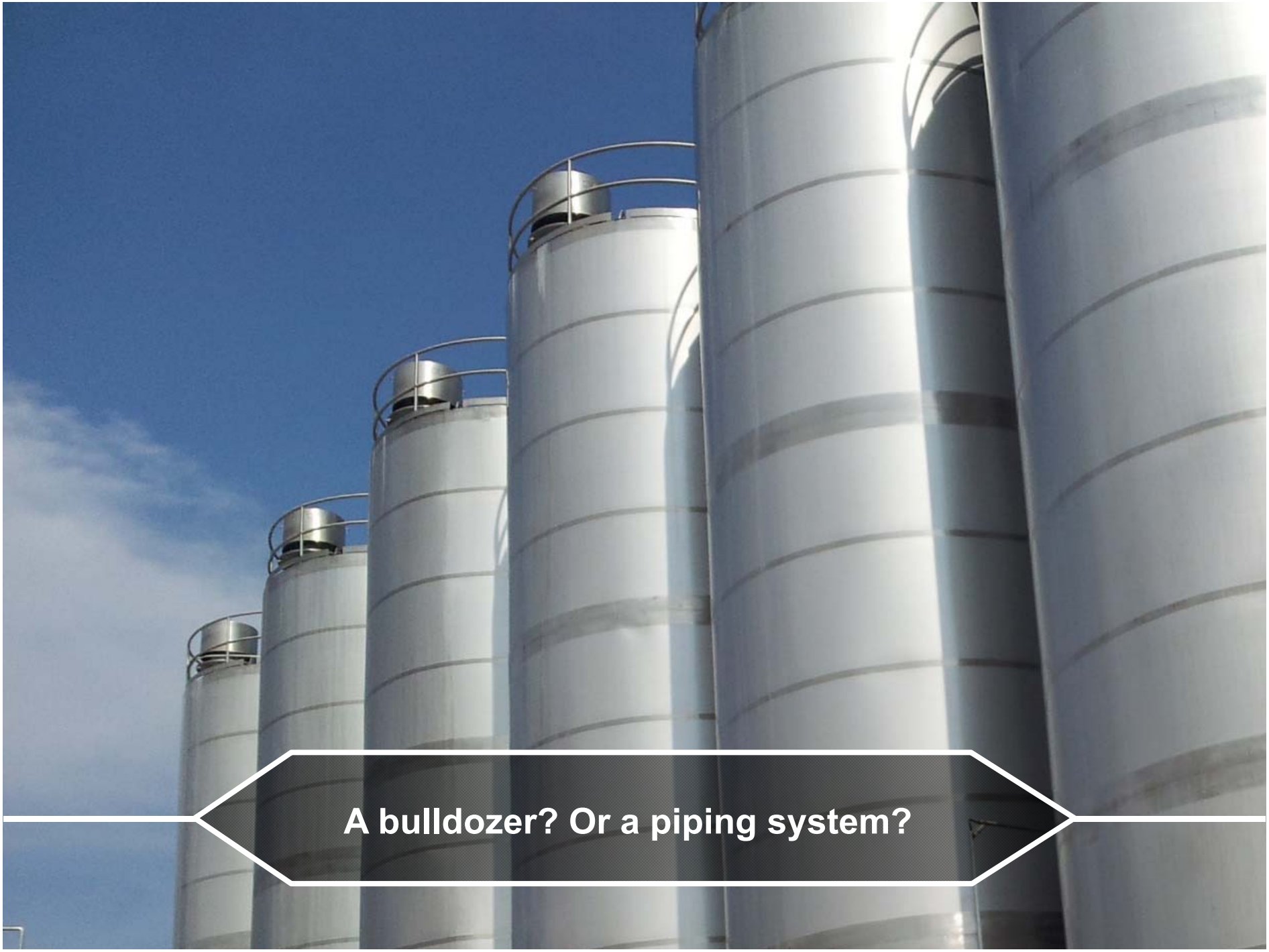
- Both have transistors
- Both have circuits
- Both work on software written in code (bytecode firmware)

Superficially similar elements do not imply identity—multiplying differences in quantity can generate differences in kind

AND SO TO COORDINATION…

	"Hopeless bureaucracy" meets "political will"	"Honest disagreement" meets "tools to help"
Diagnosis	▪ Problems result from **turf-protection or shirking** ▪ Inevitable, arising from fixed public life or human nature ▪ **Only authority can overcome the problem**	▪ Most disputes from **lack of fixed deadlines and urgency, and misunderstanding** ▪ Honest disagreement, lacking channels for resolution, hard to distinguish from misbehaviour ▪ **Only new tools can mitigate**
Response	▪ Outsiders devise solutions ▪ Frequent deployment of authority to enforce solutions ▪ **When "solutions" fail, use more authority –or give up**	▪ Build tools that **institutionalize information exchange** ▪ **Reserve authority** for process discipline, but implicitly ▪ Outsider takes decision only in case of deadlock

Micromanaging via authority? Or mobilize energy and clear blockages?


A bulldozer? Or a piping system?

EXAMPLE FROM CHANGSHA: LEADING GROUP TO DIVERSIFY AND GROW ECONOMY

Leading group description	• Headed by Mayor • Small "Office" that draws from Bureau of Commerce • ~30 depts. formally part of the group
Reporting processes	• Each month all industrial parks and lower-level teams report to the Bureau/Office on progress and problems with investments
Problem solving	• If reports indicate a problem, the Bureau/Office tries to solve it with the department directly • Only if that fails, problem taken up at quarterly mtg, chaired by Vice-Mayor, involving core departments
Deployment of authority	• If problem still not fixed, the Office immediately brings it to the attention of the Mayor, who calls a subset of the leading group to solve the problem • Semi-annually, a plenary session—with all departments—meets to consider particularly intractable problems, and substantial policy changes

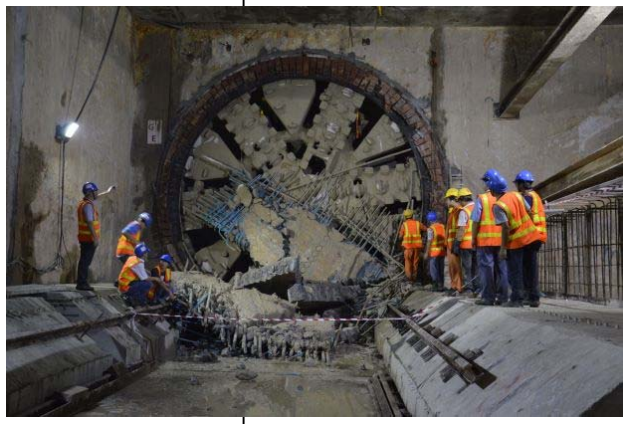
WHAT THE PROCESSES DO AND DO NOT DO

Central team does not…	… but why the system does not become "fluffy"
X Make decisions	A Keep processes inexorable
X Regularly use authority	B Structure incentives for collaboration
X Guard the purity of the plans	C Have authority in reserve
X Overrule existing processes	C Disallow "other dept's fault" excuse

"THEY'LL NEVER DELIVER THAT"[1] : BIG PROJECTS ON TIME

A new subway system (MRT) for Kuala Lumpur

- First proposed early 2010
- During first year Steering Committee met weekly, included opposition governor of state neighbouring KL
- Milestone KPIs bumped up remorselessly, cleared route, financial models, etc
- Construction began by mid-2011, by end 2013, $1 billion disbursed, line in operation by 2017
- Singapore's new MRT line has half the length, will take four years longer and is already delayed by a year

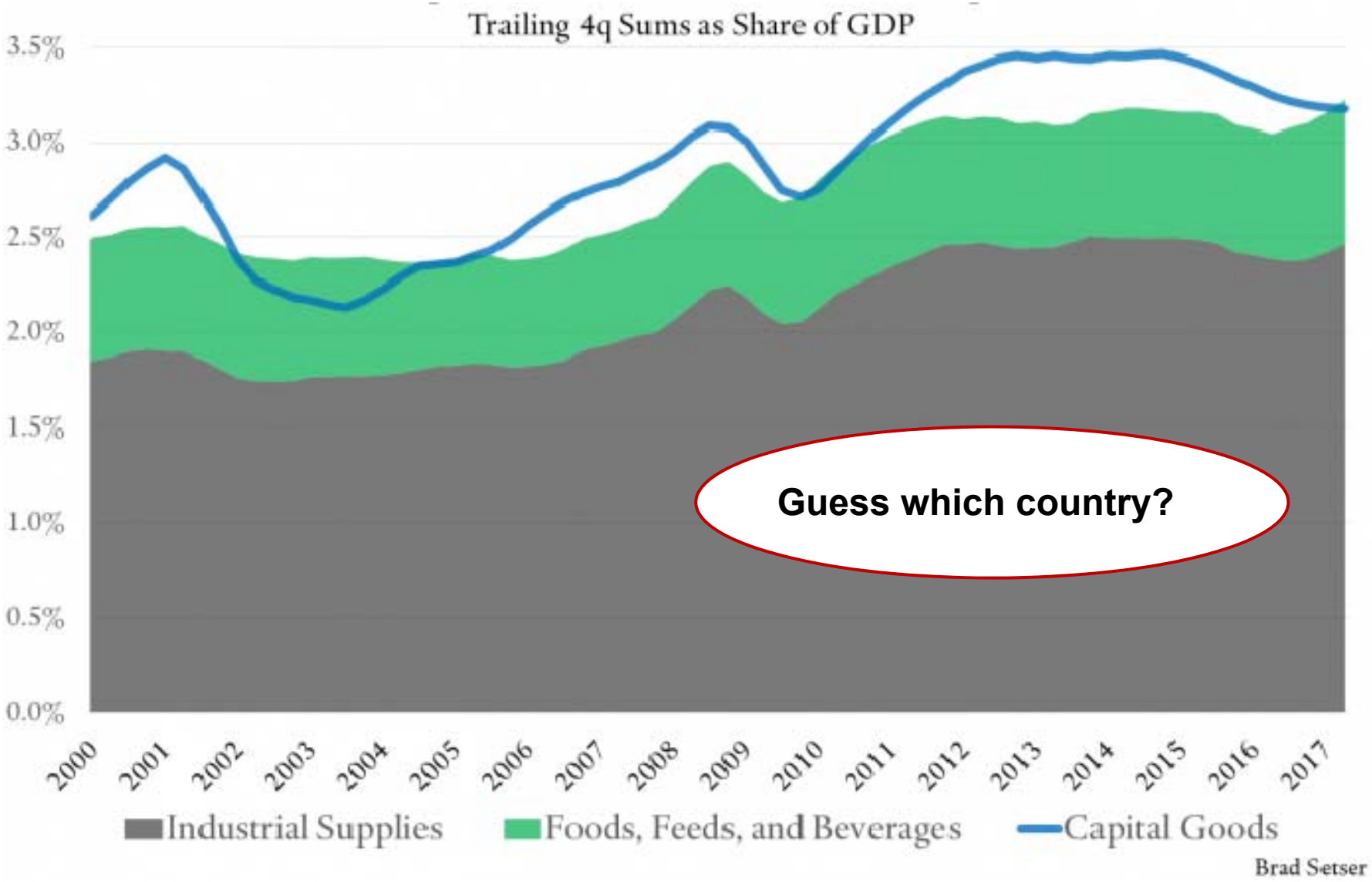


A vast new "growth pole" for oil & gas trading

- Idea to build hub for trading oil & gas across from Singapore, >$1.5bn investment
- Delivering project required resettling fishing villages, safe-guards against ecological disruption, new tax regime for import/export, etc
- Widespread disbelief project would be delivered on time, but first shipment on schedule in April 2014 – without top-down commands

1 Quote attributed to a senior Singaporean leader when asked about the PICC at an oil & gas conference

AN UNCERTAIN FUTURE—IN MANY WAYS



ITERATING VS LEARNING

Iteration

- **Problem-driven iterative adaption** (PDIA), or "muddling through"
- Reaction to "**importing Denmark**", encoded in "best practices" that are never implemented
- Implementation only sticks if **responds to felt local problem** and through **repeated adjustment to local context**

Questions begged

- What if nobody in the system **knows what the problem is**?
- How do you know if the process is **getting stuck**?
- How and where do you **accumulate learning**, so that knowledge gained in one set of iterations accumulates and cross-pollinates to another?

Necessary extension

- **Continually probe for new problems** even if no one knows they exist yet
- **Accumulate results** in ways that are meaningful for further action across the system

Risks trying to eat soup with a fork – lots of action, small results

THE LINEAR AND THE RECURSIVE (A SUMMING UP)

"The important thing is the plan"

- Solutions can be known *ex ante*
- Planning and execution can be neatly separated
- For planning, hire experts and/or convene many stakeholders
- Translate agreed-upon goals into clear targets and metrics
- Insert the metrics into agreements with managers
- Monitor actions intensively and discipline any deviations
- Review meetings focus on blame and discipline
- Refuse to admit appeals to revise targets as "shifting goalposts"

Vs.

"The plan is just the beginning"

- Information never complete, so **solutions are always provisional**
- Planning and execution intertwined
- Convene many stakeholders and experts to create a **starting point**
- Use metrics to discipline monitoring and **force information to surface**
- Monitor intensely, seeking causes
- Review meetings focus on **diagnosis and problem-solving**
- **All aspects of the program open to change**, on basis of information learned **through implementation**
- Some goalposts must shift, and good design can mitigate risks

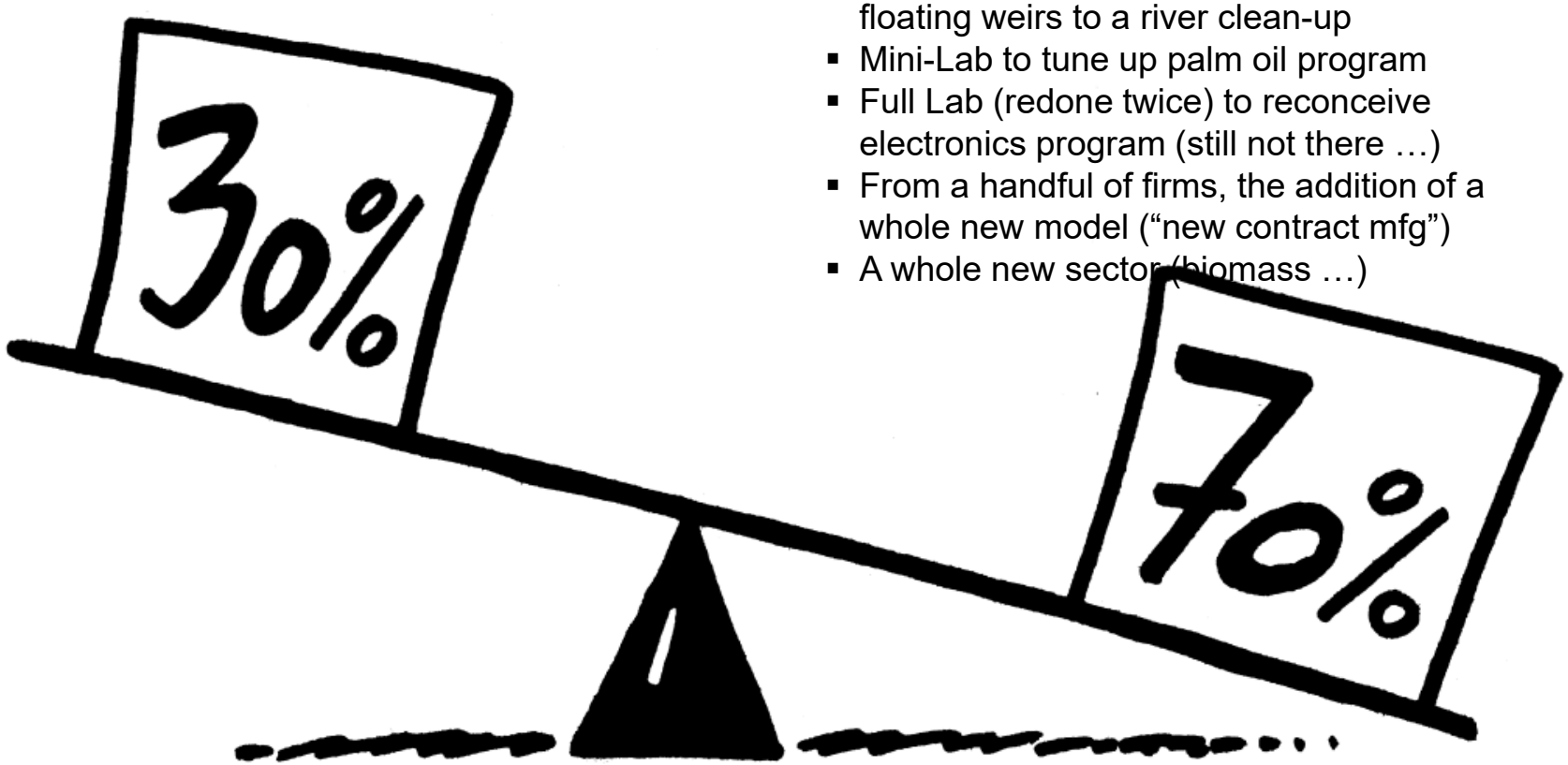
REVISION FROM TOP TO BOTTOM: 70/30 – OR, BETTER, 80/20

Examples

- Dairy program (but misconceived …)
- Others hard to find …

Examples

- Adding a small credit-guarantee fund to enable palm-oil cooperatives to work
- Adding an entirely new interceptor pipe and floating weirs to a river clean-up
- Mini-Lab to tune up palm oil program
- Full Lab (redone twice) to reconceive electronics program (still not there …)
- From a handful of firms, the addition of a whole new model ("new contract mfg")
- A whole new sector (biomass …)



When given this ratio, an official who worked in the Asukata-Tamura era, when the revision ratio was 80%, said, "oh, then we were better"

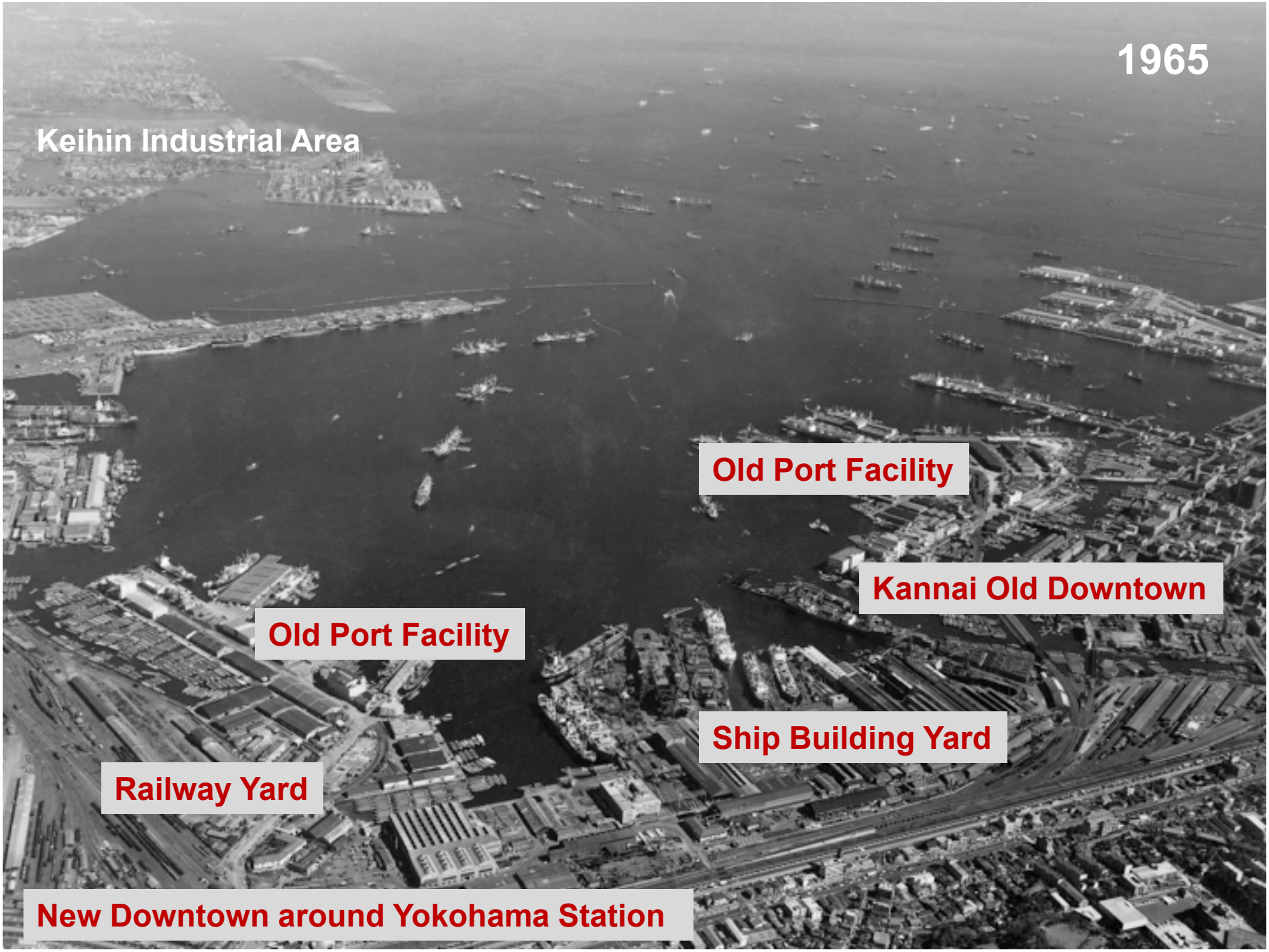
AKIN TO ADVANCED PRIVATE SECTOR MANAGEMENT

- Reliance on incentives, disciplinary monitoring often said to be based on corporate management
- **Firms moved on from that model** decades ago
- **Toyota production system** features **deliberative councils, exception reporting, heavy revision**
- Model has become even more recursive as it has spread to other sectors, **from agribusiness to film-making, to Silicon Valley**
- Hidden origins may lie in an unexpected source – **the military, with "mission command"**
- A **decentralized, recursive tactical doctrine**, it was at the heart of German military for a century
- Some evidence exists it was transplanted to the Japanese military, thence to **Japanese industrial policy and …**


SPACE RANGER
LIGHTYEAR
“No battle plan ever survives contact with the enemy” – Helmuth von Moltke

ANCHORING IN A VISION: BACK TO YOKOHAMA

- **A search process without a strong orientation risks being trapped in circles**
- One method is an **extremely high-powered governing incentive**—e.g., in US industrial policy, with **DARPA**, "avoiding technological surprise", or strong **GDP growth targets** of Japan, China, Malaysia, etc
- But high-powered incentives work—and **produce side-effects (see GDP targets)**
- So any such incentive (or less powerful ones) must be **grounded in a substantive vision**, capable of governing the incentives
- **"Vision" is mostly emptied of meaning today—but Yokohama in its transformation era reminds us of the real thing**


1965
Keihin Industrial Area
Old Port Facility
Kannai Old Downtown
Old Port Facility
Ship Building Yard
Railway Yard
New Downtown around Yokohama Station

A specific, clear, and difficult vision: to transform the physical, economic and social heart of the city from port and industry to culture and the citizen

A VISION ANCHORED IN CITIZENS

A vision of, by and for citizens

- Relentless focus :
  - ➢ The citizen designed the future of the city
  - ➢ Industry transformed on behalf of the quality of life of citizens
  - ➢ Each vested interest was coopted, fought, negotiated with, over more than a decade, with and on behalf of citizens
- Not platitudes of “citizen engagement”, but real, visceral
- Talent flowed; infra-structure was built; investment came; structural transformation happened—always for and with citizens

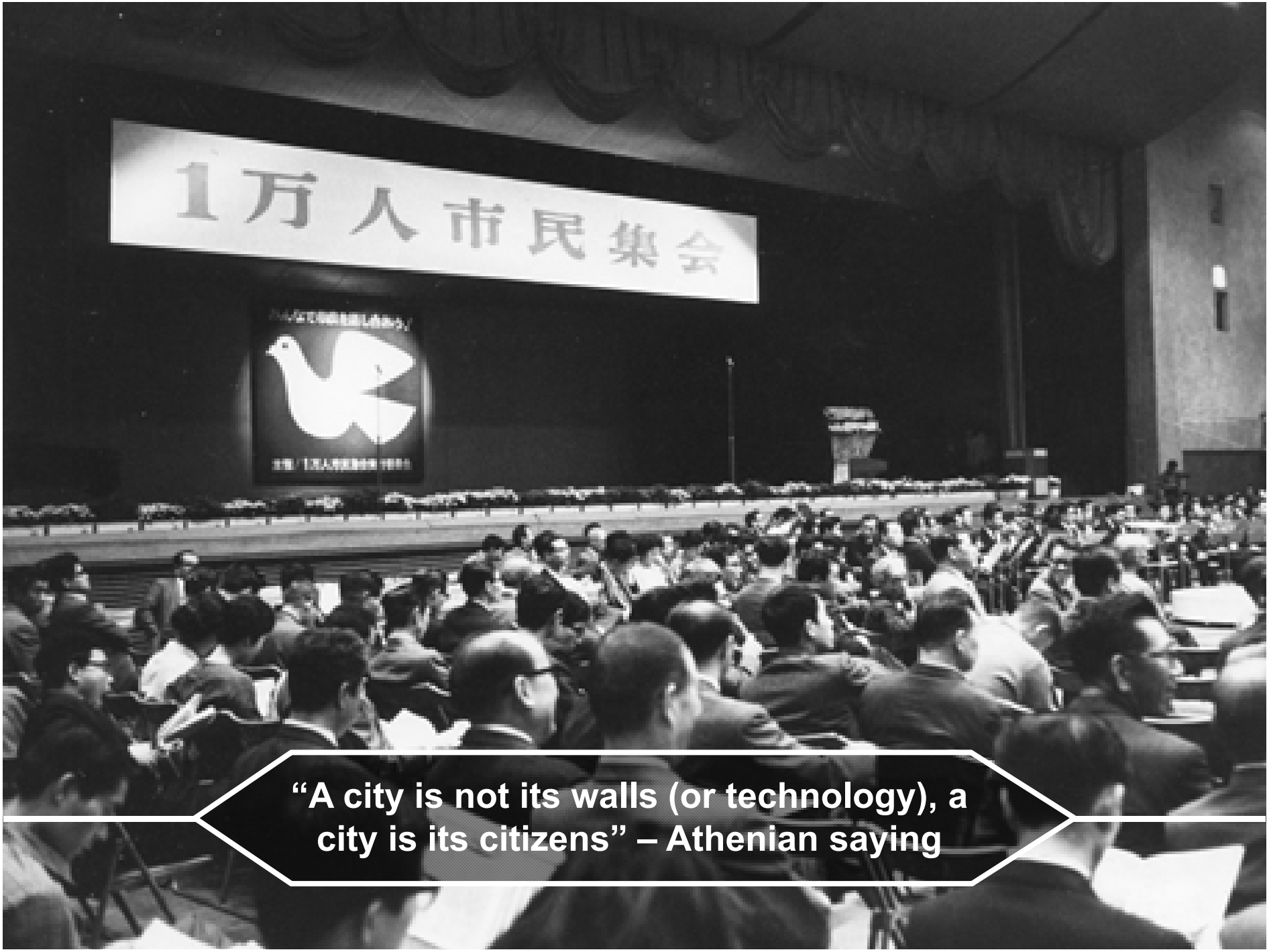
Some of the instruments

- **10,000 citizen convention**
- **Not the department of urban planning, the department of “community building”**
- Incentive zoning implemented via **district councils in which citizens played primary role**
- Bureau of community welfare set up to directly touch citizens’ quality of life—**large, staffed well, and a Mayoral priority**
- **Six big projects turned into cartoons** and distributed in schools—still well known today

HARD AND EXPENSIVE—AND MANY TEMPTATIONS TO RETREAT

- **Participation processes are hard,** subject to risk:
  - Capture by the loudest
  - Low turnout
  - Factional or sectional bias
- **No shortcuts**—methods found to reliably mitigate risks are high-touch and high-skill
- **Best way to guarantee citizen participation will not work is to under-resource it**
- **In Kobe, officials attended hundreds of meetings** and drew on 40+ years
- **In Yokohama processes were even more intense**—but after initial investment, for decades the original vision could guide action
- **May be seeing now in Barcelona**: ~100 officials in dept, massive Mayoral priority, already shifting the boundaries of the possible (e.g., transport)

Difficult—but alternative is go back to waiting for deliverance by political will



“A city is not its walls (or technology), a city is its citizens” – Athenian saying

CLOSING THOUGHT: FIND AN EQUILIBRIUM TO DISTURB …

- In thermodynamics, an undisturbed system in equilibrium increases its entropy—it decays in energy and information
- But there are pockets of the universe where the opposite happens, where information grows rapidly
- Those are states that have been disturbed slightly from an equilibrium
- One might sum up the above by saying that highly capable institutions seek to continually shift social and economic actors out of equilibrium
- In doing so, as in a physical system, they increase the production of information, notably information about nearby opportunities
- Repeated over and over, this sequence—shifting out of equilibrium, generating information, using it to transition, then continuing to move—may be the most viable path to move from one set of capabilities to another

Where and what is the first equilibrium you can disturb?