



Planning and Managing Performance Improvement Programs

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Business improvement challenges



Fewer accidents and injuries

Fewer data-security breaches

Reduced energy use (and *greenhouse-gas emissions!*)

"Digital Transformation" (more efficient and effective business processes)

Background



The British Standards Institution (BSI) publishes ISO Management Standards on many performance-improvement issues

Certification to these Standards is often a condition of doing business (e.g. ISO-9001 on quality management), but others are more optional

There is much potential for economy-wide benefits from wider awareness and uptake of ISO Standards

... so attract more awareness and understanding with "serious games", especially for small-to-medium enterprises (SMEs)



Management standards drive business improvements

"We believe ...

Adopt BSI
Management
Standards



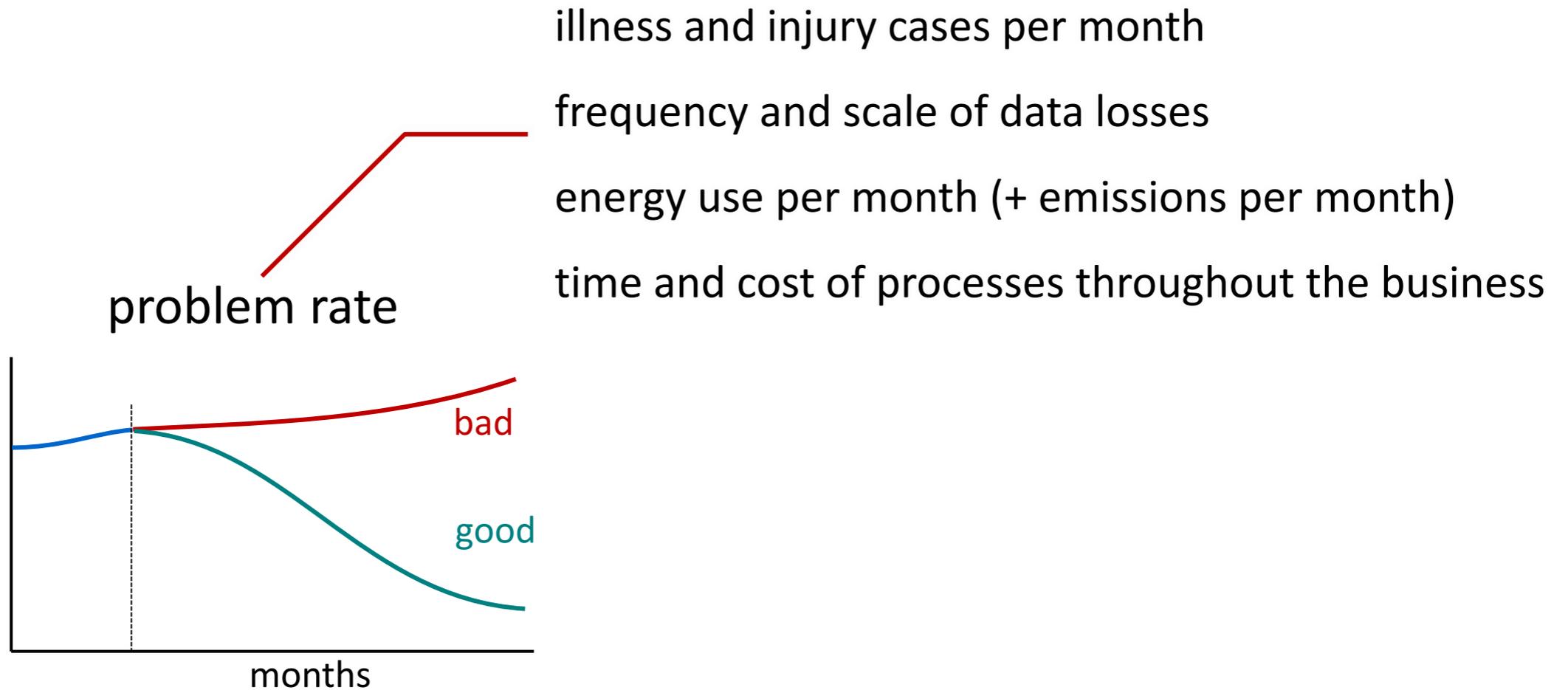
Improve the problematic issue
and
get wider business benefits "

... achieved with strong leadership and staff engagement

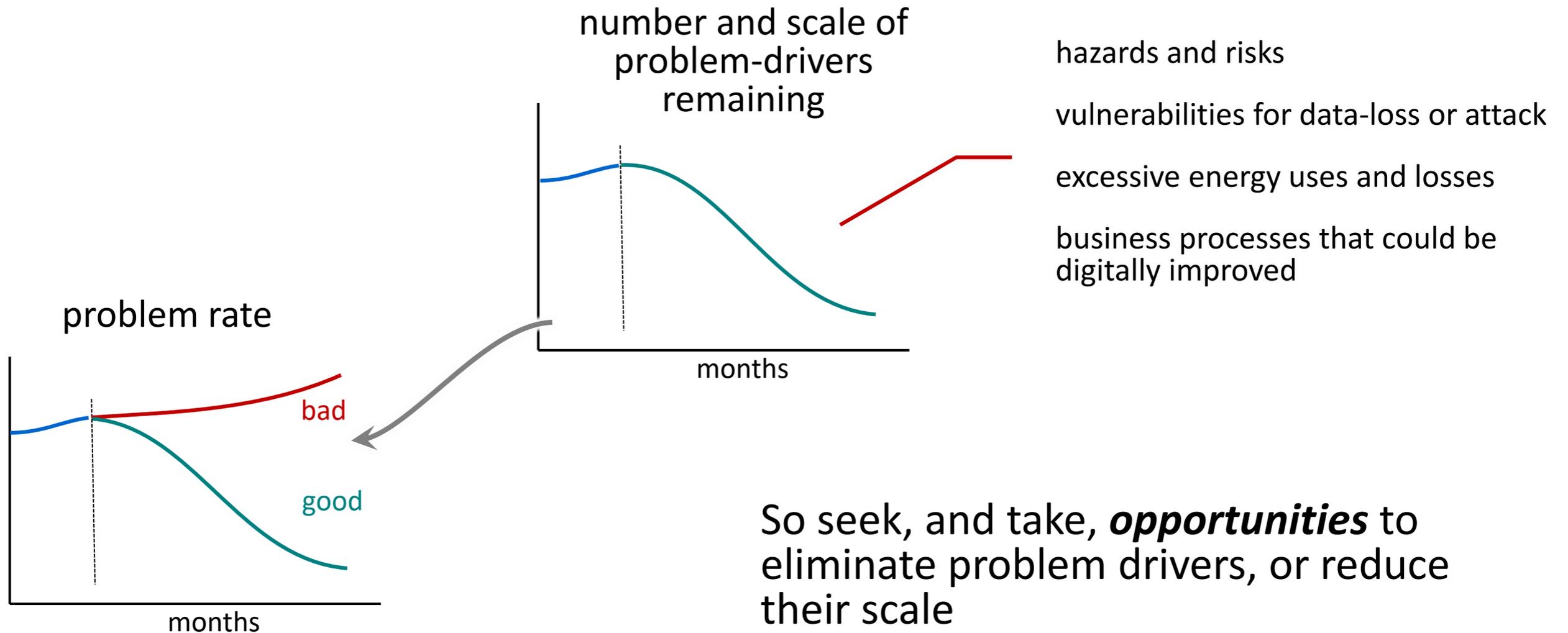
But *how* does this actually work?



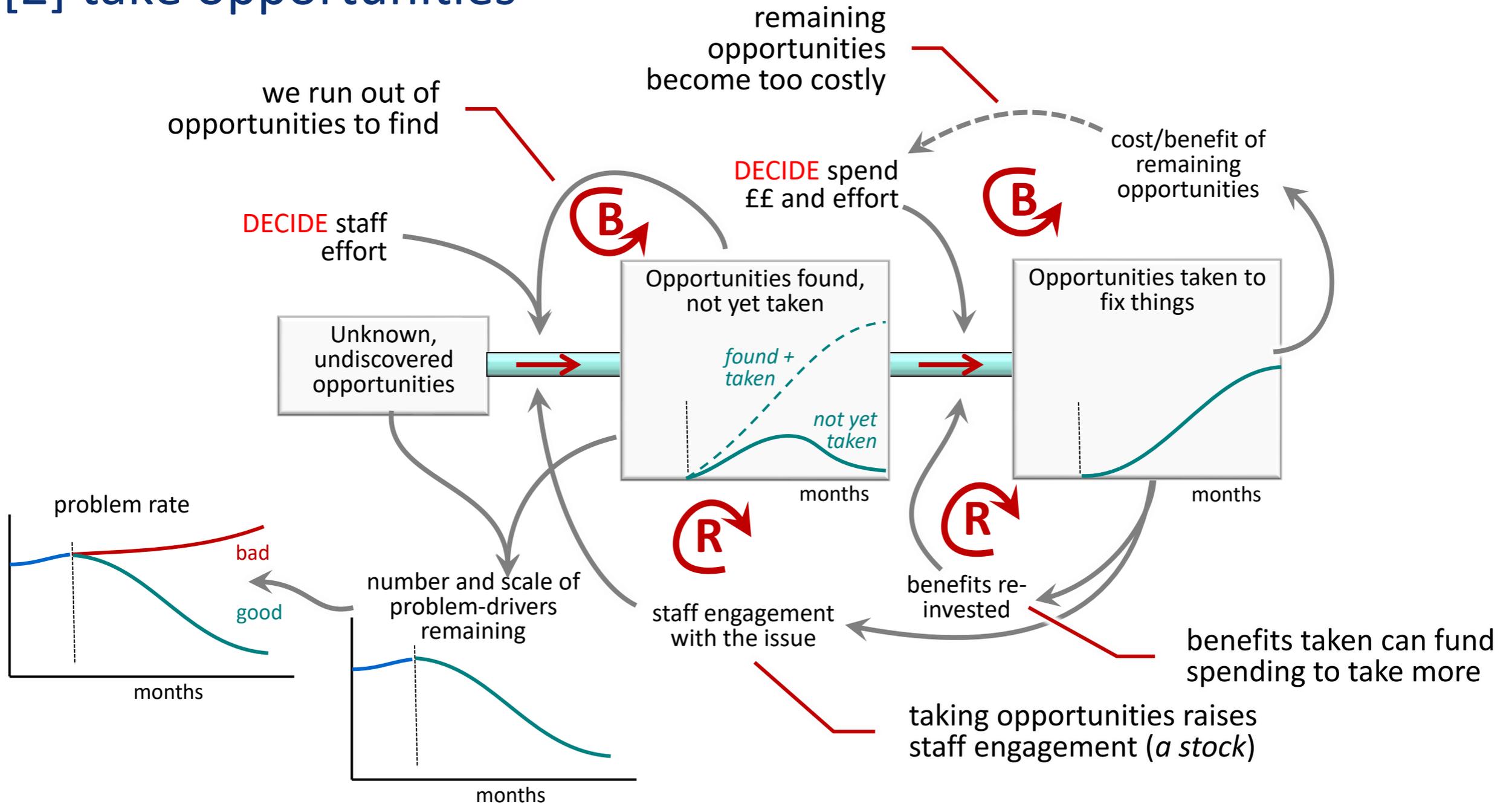
Business improvement – time-chart of the outcome we want to improve



Business improvement – drivers of problem outcomes



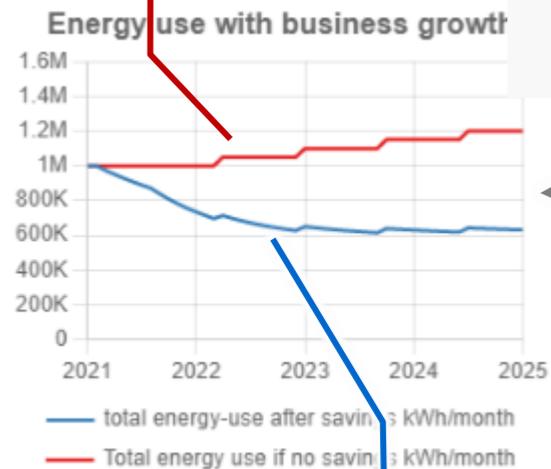
Business improvement: [1] seek opportunities [2] take opportunities



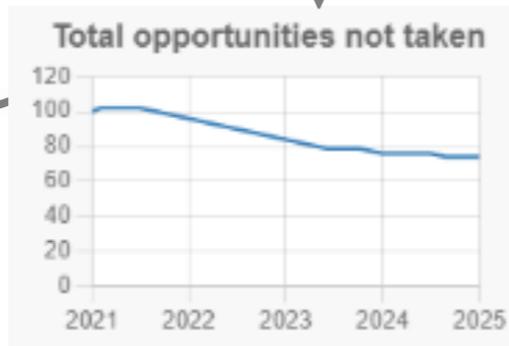
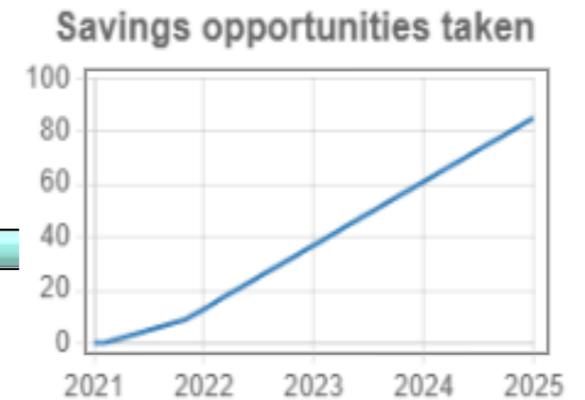
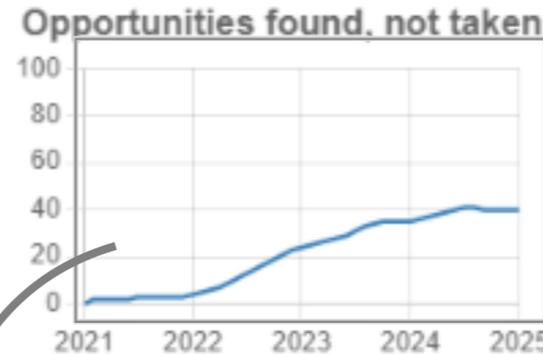
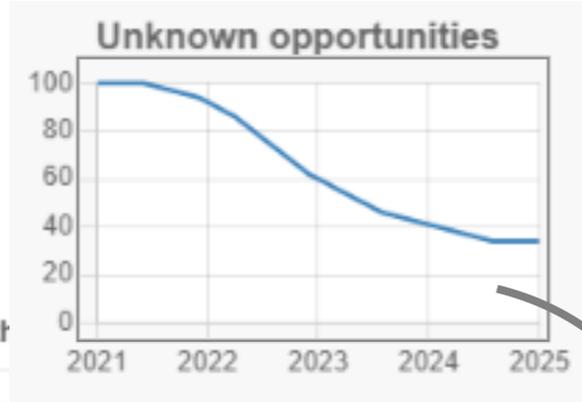
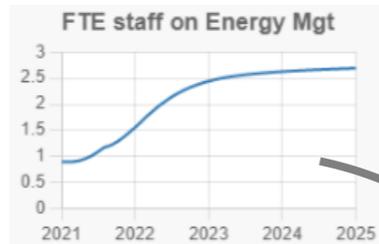
Business improvement: [1] seek opportunities [2] take opportunities – Energy saving example



lower costs help win customers, growing the business, and its energy use



irreducible energy use and uneconomic savings

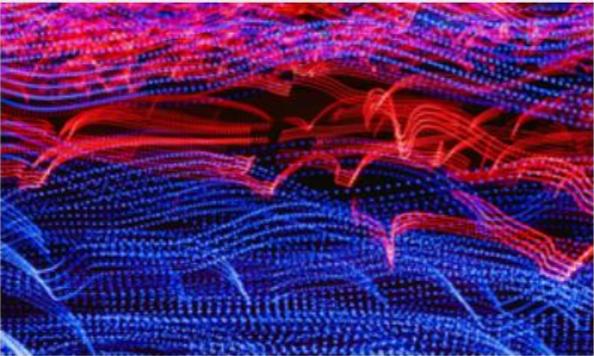


A mid-scale business producing ready-meals. Has 20 large retail customers and ~300 staff. Initially uses 1.0m kWh/month, mostly for processing, cooking and chilling, and space-heating/cooling, costing £150,000/month.

3 serious games to show how BSI management standards drive business benefits ([link here](#))



bsi. Standards Services Sectors Topics About 🔍 ✉️



ISO 27001 - Information Security

You simply can't be too careful when it comes to information security. Protecting personal records and commercially sensitive information is critical.

[Find out more >](#)



ISO 45001 - Occupational Health and Safety

The world's first global occupational health and safety management system which will help you to protect and enhance your most important asset, your people, to drive business excellence.



ISO 50001 - Energy Management Systems

Used by large and small organizations across the world to manage and reduce energy use and costs, ISO 50001 is an excellent framework to help implement an energy management system (EnMS).

Each game:

- ... makes explicit how opportunities move from Unknown, to Known, to Taken
- ... players decide on the urgency of the Standard's implementation + spending
- ... displays impacts, costs and benefits over a 2-year program

[For modelers ...] Demo energy-saving program model



Decide initial leadership commitment and % of maintenance budget spent on energy saving

Planning and Managing Performance Improvement Programs - Energy-Savings Example

This model - for instructional purposes - reflects a generic structure capturing the dynamics of performance improvement programs:

- Undesirable performance outcomes (energy use) are driven by a population of initially unknown outcome-drivers (avoidable energy uses)
- staff effort progressively discovers these outcome drivers (opportunities to save energy), moving them from 'unknown' to 'known'
- more effort and cost progressively captures these opportunities
- each opportunity has an associated potential for saving energy, so as opportunities are found and taken, so too is the potential energy-saving

The performance improvement achieved over time (energy-use saved) reflects:

- leadership by management, which assigns staff to the program
- the engagement of the wider staff population in the effort
- both leadership and staff engagement rise as they see energy savings being achieved
- these factors accelerate the program's progress
- ... but as opportunities are taken, fewer remain to be found, along with the average energy-saving potential

Other types of performance-improvement programs reflecting these dynamics include:

- Health & Safety (fewer accidents and injuries)
- Information security (fewer data-security breaches)
- "Digital Transformation" (reduced effort and cost, and enhanced effectiveness of business processes)

DECISIONS

Initial level of leadership on energy-saving

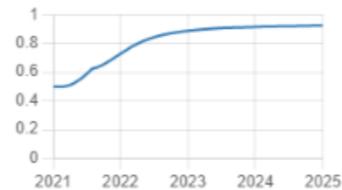
0.5

% of maintenance budget to spend on energy savings

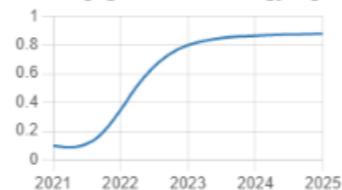
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Leadership and staff engagement

leadership on energy saving



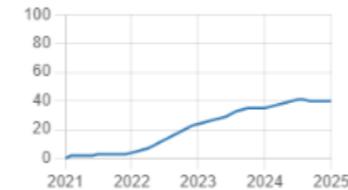
Staff engagement with energy mgmt



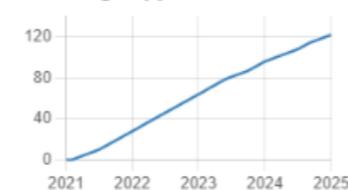
Energy-use savings achieved

NOT adjusted for sale growth

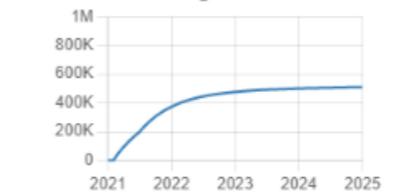
Opportunities found, not taken



Savings opportunities taken



total savings kWh/month



Energy use with business growth



Get the model: sdl.re/EnergySaving1

Software guide: sdcourses.com/silico-guide

The practical realities from the case studies ...

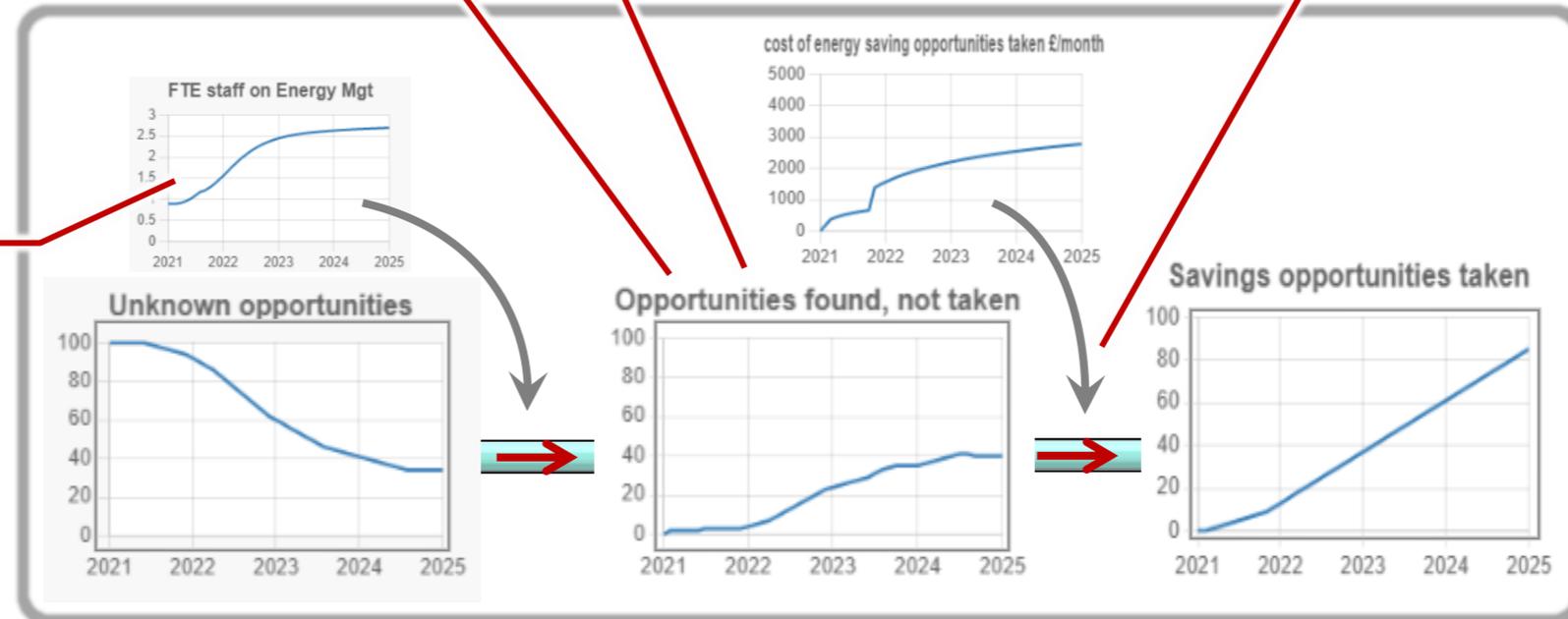


... an itemised list of detailed, specific opportunities to act or install devices

... each with an assessed energy-saving impact, and cost

Monthly management meetings review the latest additions to the list, and select which opportunities to take, when.

Early success raises management commitment, and increases the number of people spending some time on energy management



Exactly equivalent mechanisms arise in **other** improvement programs – health & safety, information security, NetZero plans, digital transformation ...

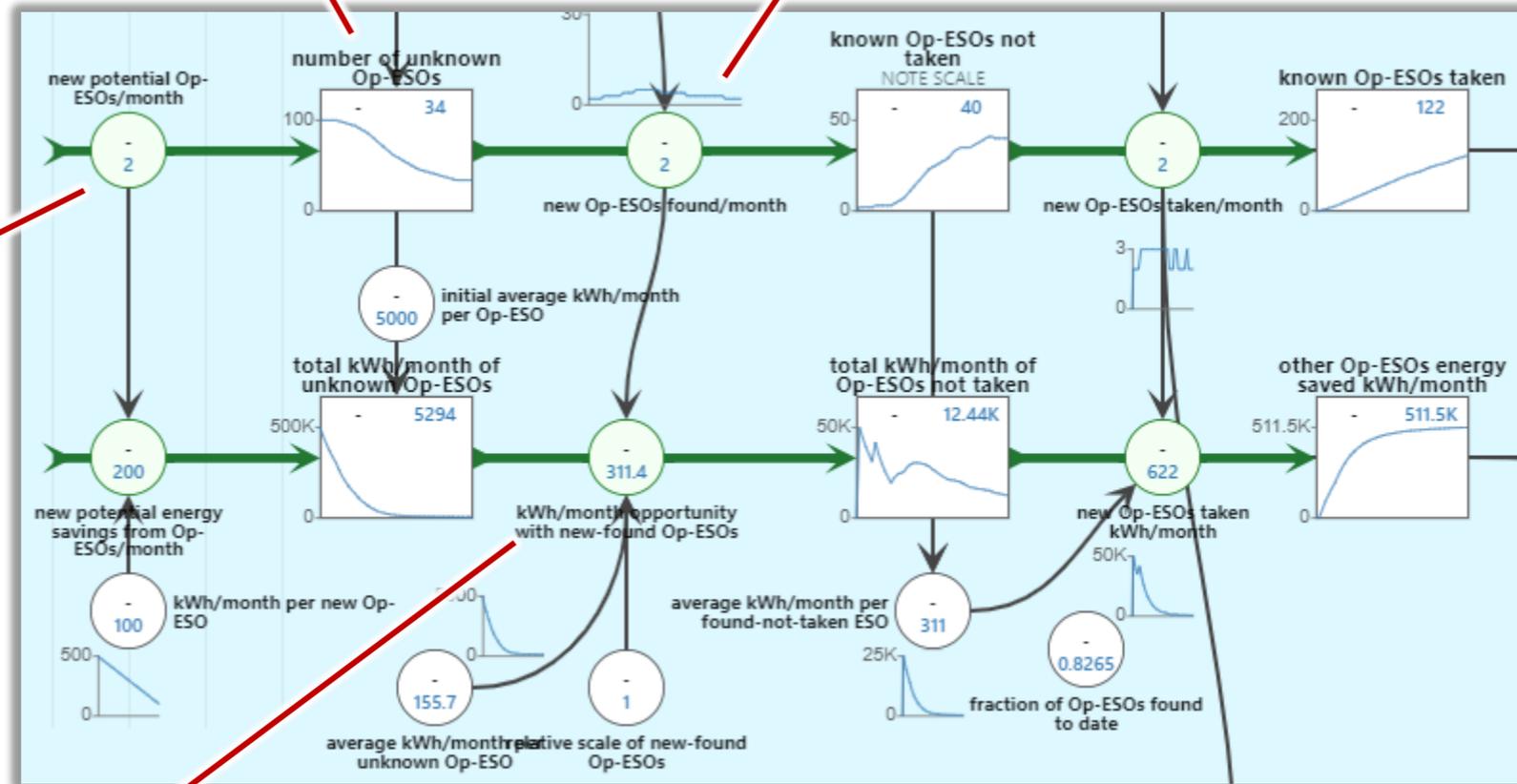
[For modelers ...] The opportunity-capture pipeline and associated energy savings



Energy-saving opportunities flow from Unknown to Known to Taken

Flow-rates are driven by staffing and spending amounts

New technology opens more opportunities to save energy



Each opportunity carries an "energy saved" attribute co-flow

(In practice, the model can be driven by an itemized opportunities-list and associated energy-savings and costs for each.)

The most reliable path to a rigorous model – "Agile SD"

(This project did not start from qualitative CLDs!)



1. Specify the time-chart for the *performance over time* (or Stock) objective – including history

2. Answer "What causes that?" to explain how that performance *for every period* depends on changing *quantities of Stocks* ... and on *Decisions* and *External factors*.
Quantified time-charts on everything

3. Answer "Why do the Stocks change like that?" – because of how the *Flows* (gains *and* losses) change over time

4. Answer "Why do the Flows change like that?" – they *also* depend in every period on the quantities of Stocks at that time ... and on *Decisions* and *External factors*

... which causes *interdependence* and *feedback* – creating the core of the 'system' driving performance

Step 4 may find new Stocks,
so repeat steps 3 and 4

See sdcourses.com/courses/agilesd

Conclusions



Performance-improvement programs are common, but often fail, or stall

A quantified, time-based model can project likely progress, and staffing, cost and impact implications

... and the impact of mechanisms to build momentum (leadership and staff engagement)

The model can then be used for on-going program management – what to do, how much, when.

More on strategy dynamics at sdcourses.com



Appendix: The Net-Zero Challenge game for small-to-medium enterprises

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The NetZero challenge game for small-to-medium enterprises "SMEs"

Businesses account for 18% of UK emissions (+ more from transport)

Half of those emissions are by SMEs (up to 250 employees)

Employment-based emissions ~4 tons/year per employee

Regulations and business-customer pressure increasingly demands action to cut emissions

Understanding and action among SMEs is very low

"The net zero challenge for SMEs"

Go to game [at this link](#)

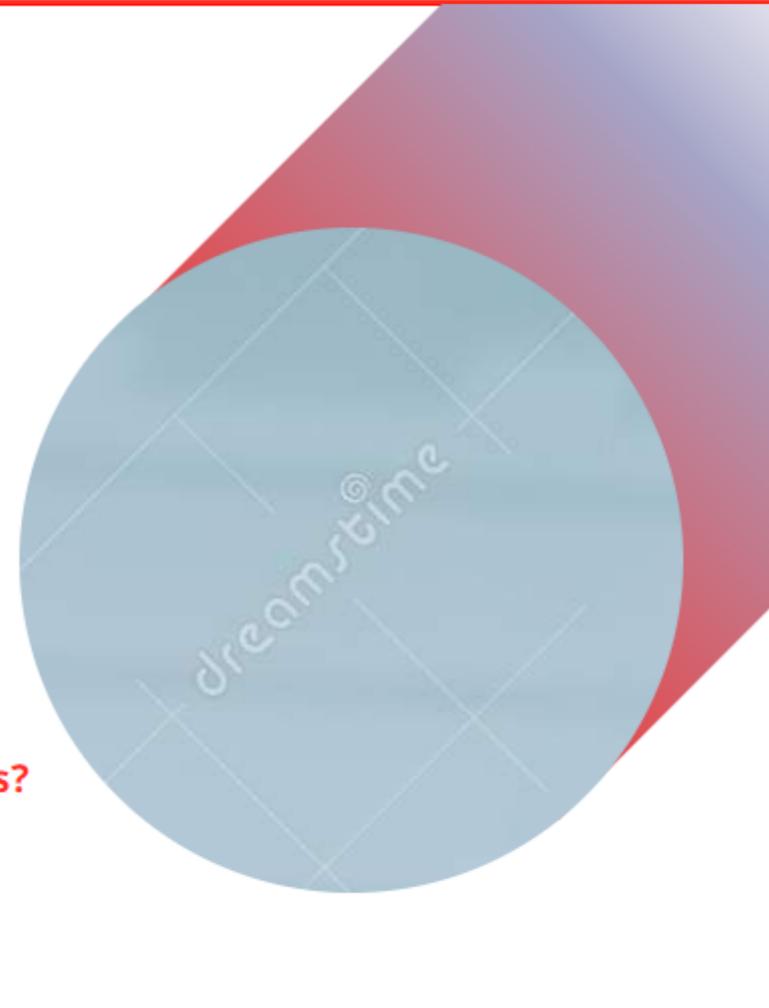


bsi. SME Net Zero Challenge

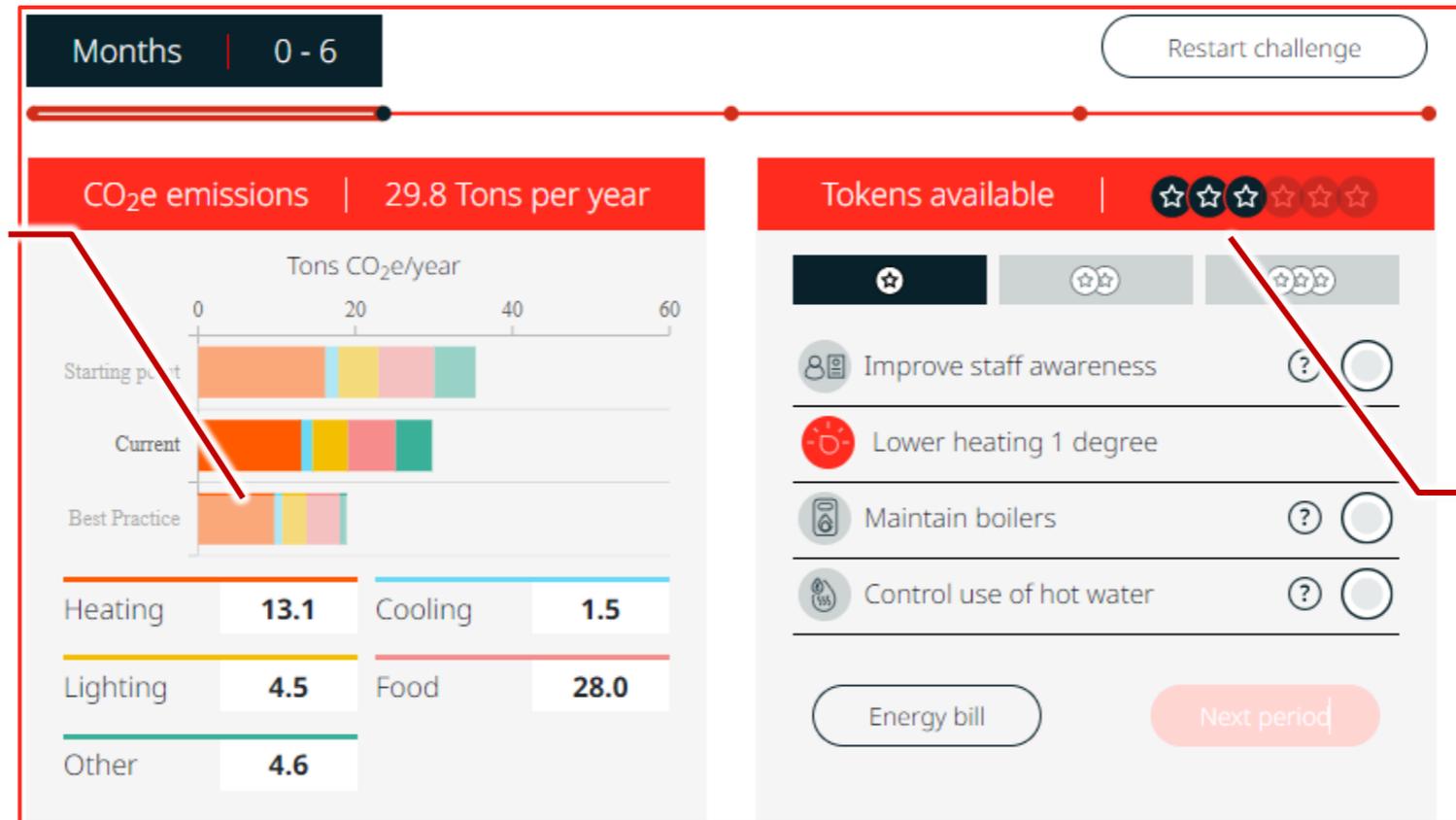
Take on our energy management challenge.

Your business is ready to take control of its emissions, and you've been put in charge of the decision making. **Think you've got what it takes?**

Start the challenge



Choose emission-reduction options of varying cost and effort



your current emissions, by type, -v- your start-point and 'best practice' (*which can be exceeded!*)

you spend 'tokens' indicating the cost and effort of each option, and earn more tokens for the savings you make



2-year actions and longer-term results

your strategy plays out over 2 years

the 5-year impact of your strategy

further impact of UK power-generation switching to renewables + nuclear

