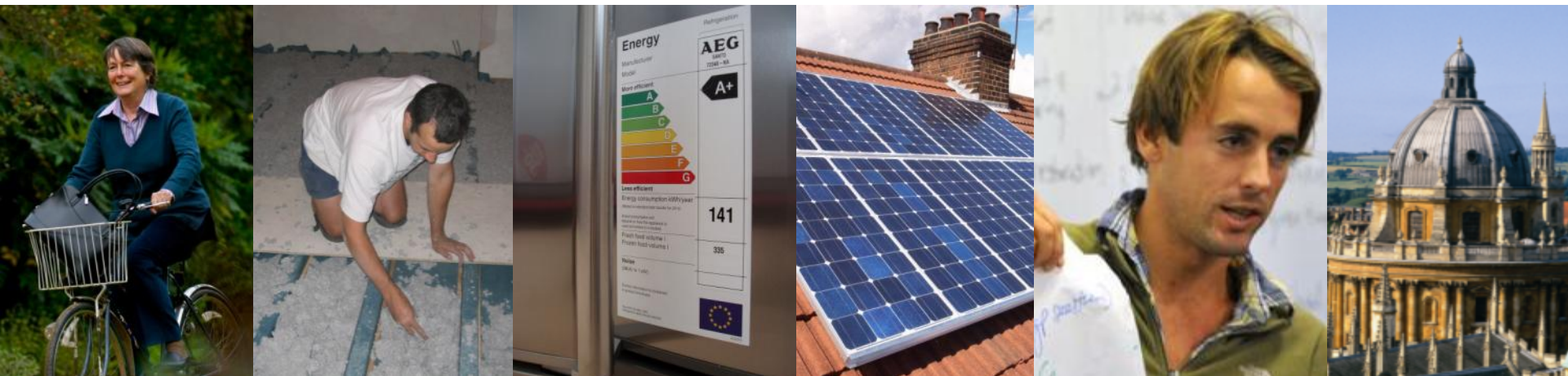
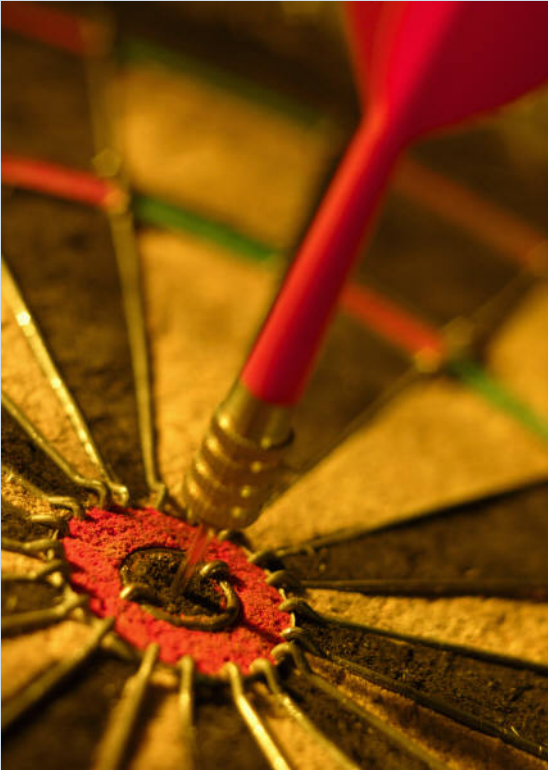


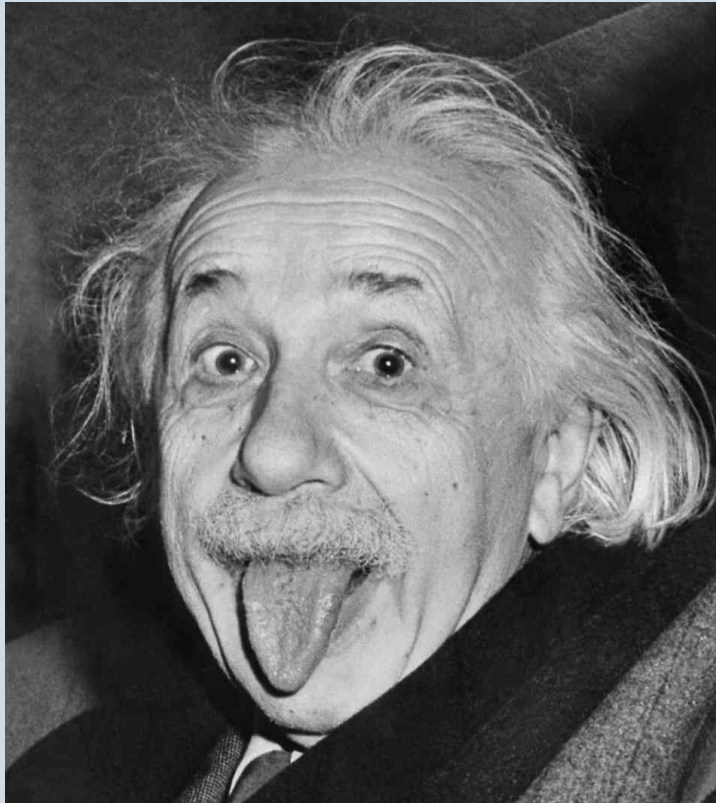
# Reconstructing Promises in Energy Efficiency: Building Bridges Between Hero, Learning, and Love Stories



# Why does the promise of energy efficiency (particularly demonstration projects) need reconstruction?



# Insanity:



...doing the same thing over and over again and expecting different results.

Albert Einstein



# 1. We're lying...and we know it



**What the big  
print giveth,  
The small print  
taketh away.**



**Step right up, step right up, step right up!**

**Everyone's a winner, bargains galore!  
That's right, you too can be the proud owner  
Of the quality goes in before the name goes on  
One-tenth of a dollar, one-tenth of a dollar,  
we got service after sales.**

**That's right, it filets, it chops, it dices, slices,  
Never stops, lasts a lifetime, mows your lawn  
And it mows your lawn, it picks up the kids from school  
It gets rid of unwanted facial hair,  
It gets rid of embarrassing age spots,  
It delivers a pizza, and it lengthens, and it strengthens  
And it finds that slipper that's been at large  
under the chaise lounge for several weeks  
And it plays a mean Rhythm Master,  
It makes excuses for unwanted lipstick on your collar  
And it's only a dollar, step right up,  
it's only a dollar, step right up!**

**Excerpted lyrics from  
Step Right Up  
by Tom Waits**

## 2. We are overenthusiastic and fly too high





### 3. We have a hero complex



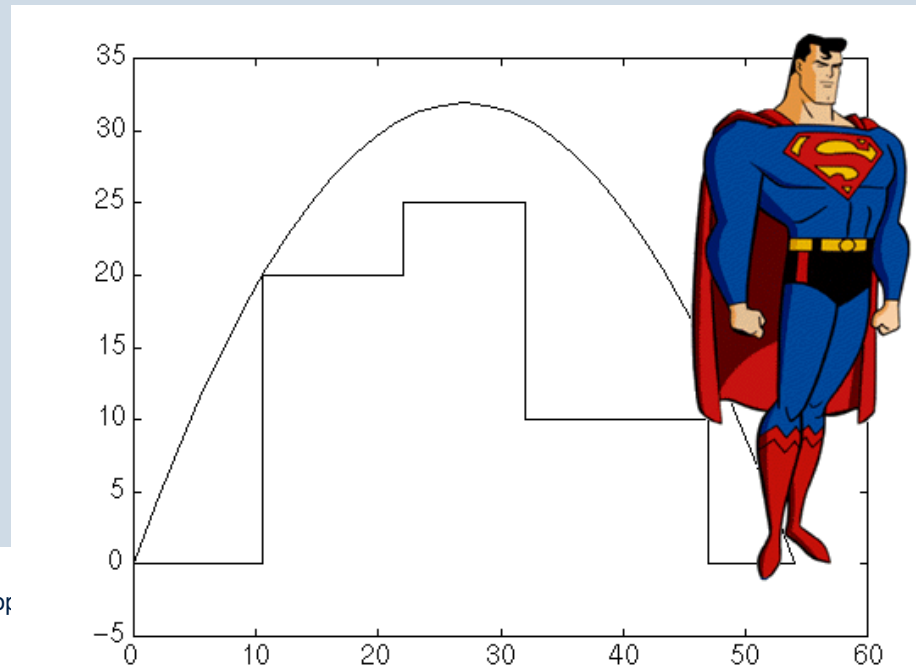
# Pros & Cons of acting like a superhero

## Positives

- Not fakers
- Not fanatics
- Selfless do-gooders, fighting evil
  - and saving the world!
- Soothing (someone else solve the problem)
- **Very popular with funders!**

## Problems

- Energy waste isn't evil
- We usually don't deliver exactly what we've promised
- Overly focused on "success"

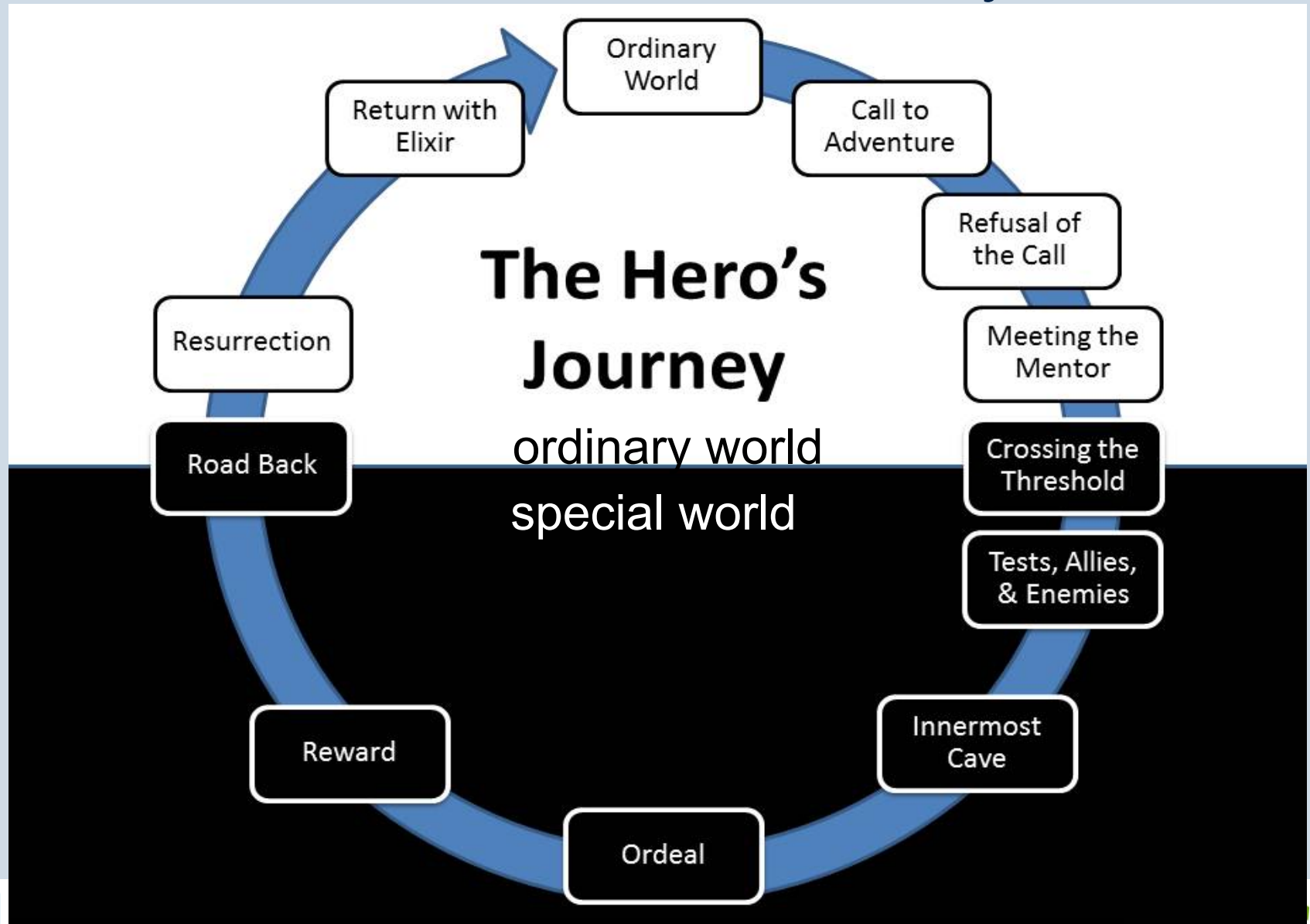




# Can we learn anything from literature about telling a better story?



# Possible Narratives: The Hero Story





**The journey:**  
A young soldier faces civil war within his platoon as Rival Mentors war for his soul.

**PLATOON (U.S. 1986)**  
120 min

**Act III**  
**Chris avenges**  
**Elias' death.**

Chris survives to tell his tale.  
We may learn from our tragedies.

Chris awakens after artillery blast.  
He kills Barnes as the new troops arrive.

Chris confronts Barnes;  
Barnes spares him.

Chris knows Barnes is responsible for Elias' death.

**ORDEAL SEQUENCE ENDS:**  
Platoon witnesses the death of Elias.

**Act II - B**  
**Chris confronts**  
**Barnes.**

**ORDEAL SEQUENCE BEGINS:**  
Barnes hunts down Elias.

**TEST PHASE**  
The platoon is divided. Chris follows Elias.

Chris arrives; he must keep his identity secret.

TEST PHASE:  
with the rest.

### Chris meets his rival mentors

THRESHOLD SEQUENCE BEGINS:  
Chris awakens and faces an ambush.

THRESHOLD SEQUENCE ENDS:  
Chris is "resurrected" and  
welcomed by Elias  
and his "heads."

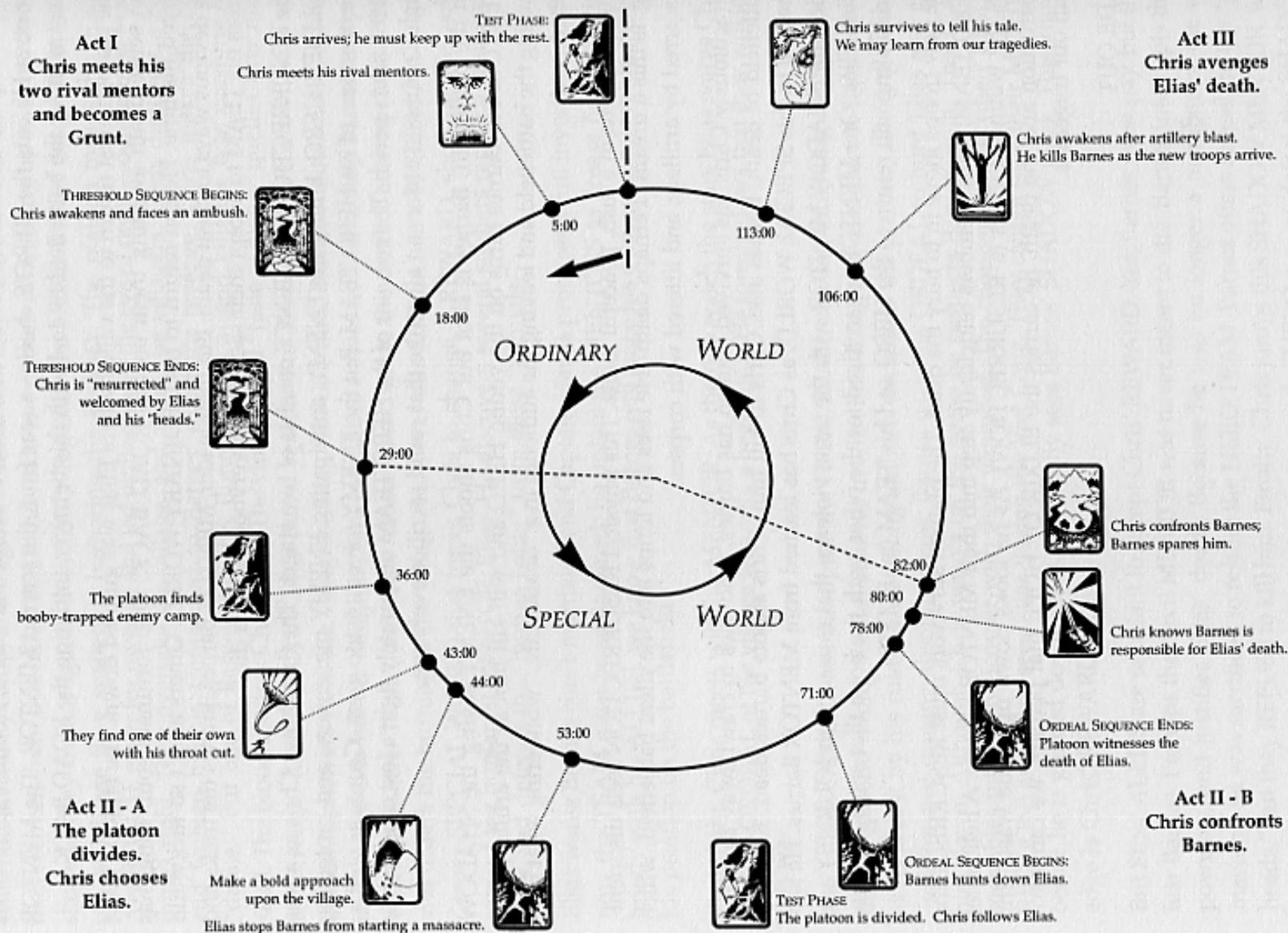
The platoon finds  
booby-trapped enemy camp.

They find one of their own  
with his throat cut.

**Act II - A**  
**The platoon**  
**divides.**  
**Chris chooses**  
**Elias.**

Make a bold approach  
upon the village.

Elias stops Barnes from starting a massacre.







# S U C C E S S

Because you too can own this face of pure accomplishment



# The Horror Story





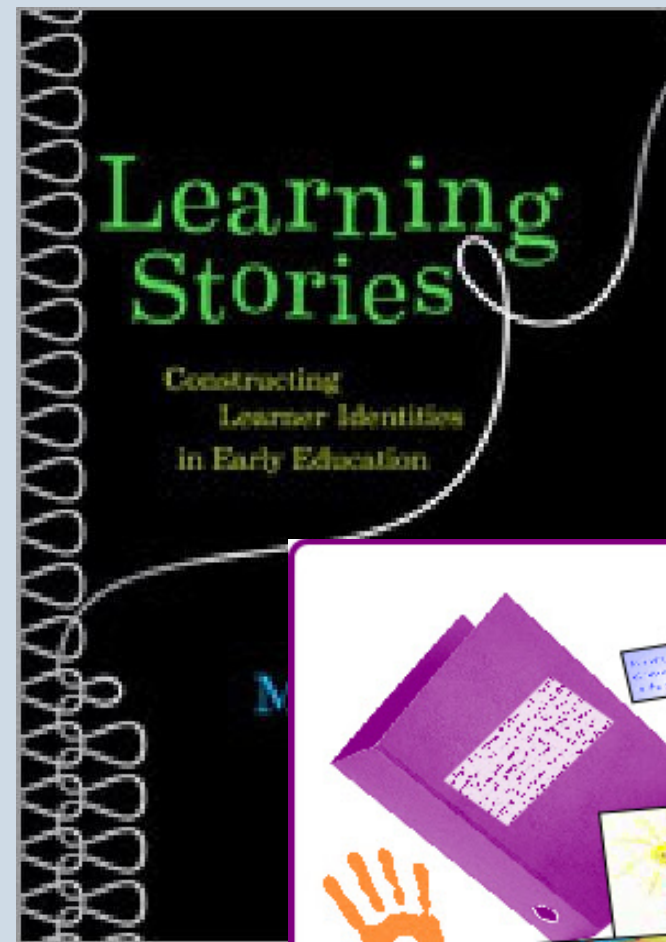


# FAILURE

Sometimes you just don't have an excuse

# The Learning Story

- Learning stories
  - Used in research & teaching, usually of children
  - Occur in the real world (not fictionalized spaces)
  - Specific context, place, and people play a role in the lesson
  - Require active engagement of teacher and learner



# Two Heroes (?) in Practice:

1. AJLC hero story: “a building like a tree, generates more energy than it consumes”
2. UK Retrofit for the Future hero story: deep retrofits can deliver 80% carbon reductions
3. CONCERTO hero story: community scale renewable and rational use of energy will produce social & environmental benefits





# 1. Adam Joseph Lewis Center (AJLC) for Environmental Studies, Oberlin College, USA

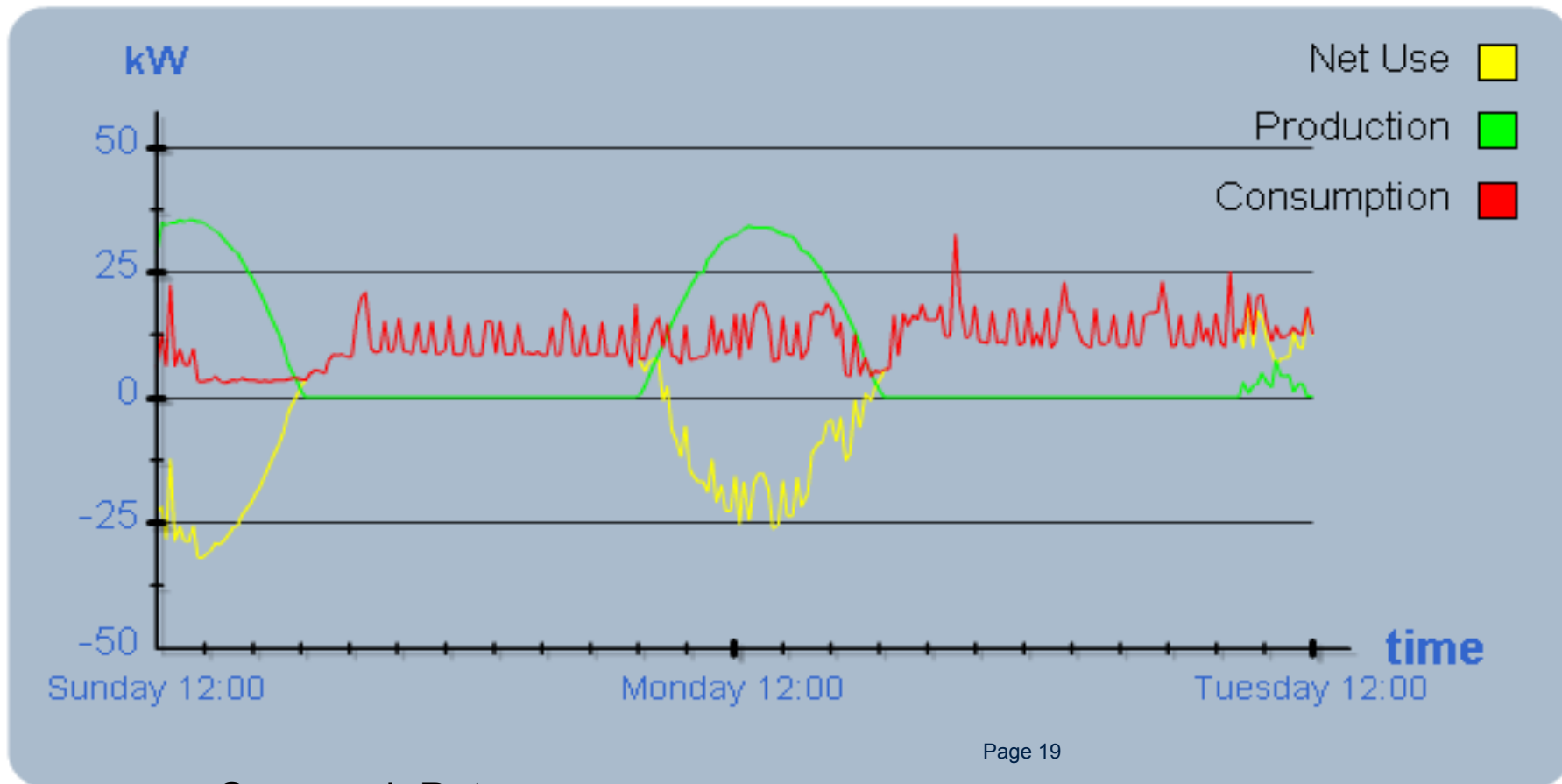
- 13,600 sq.ft.
- Classrooms, offices, library, auditorium
- Cost: \$ 7.1M
- Architect  
William McDonough  
+Partners
- **Green Features:**
  - Passive solar heat
  - Daylighting
  - ground source heat pumps, 60 kW PV array
  - Living machine
  - Integrated landscaping



# Does the AJLC produce more energy than it consumes? Sort of...

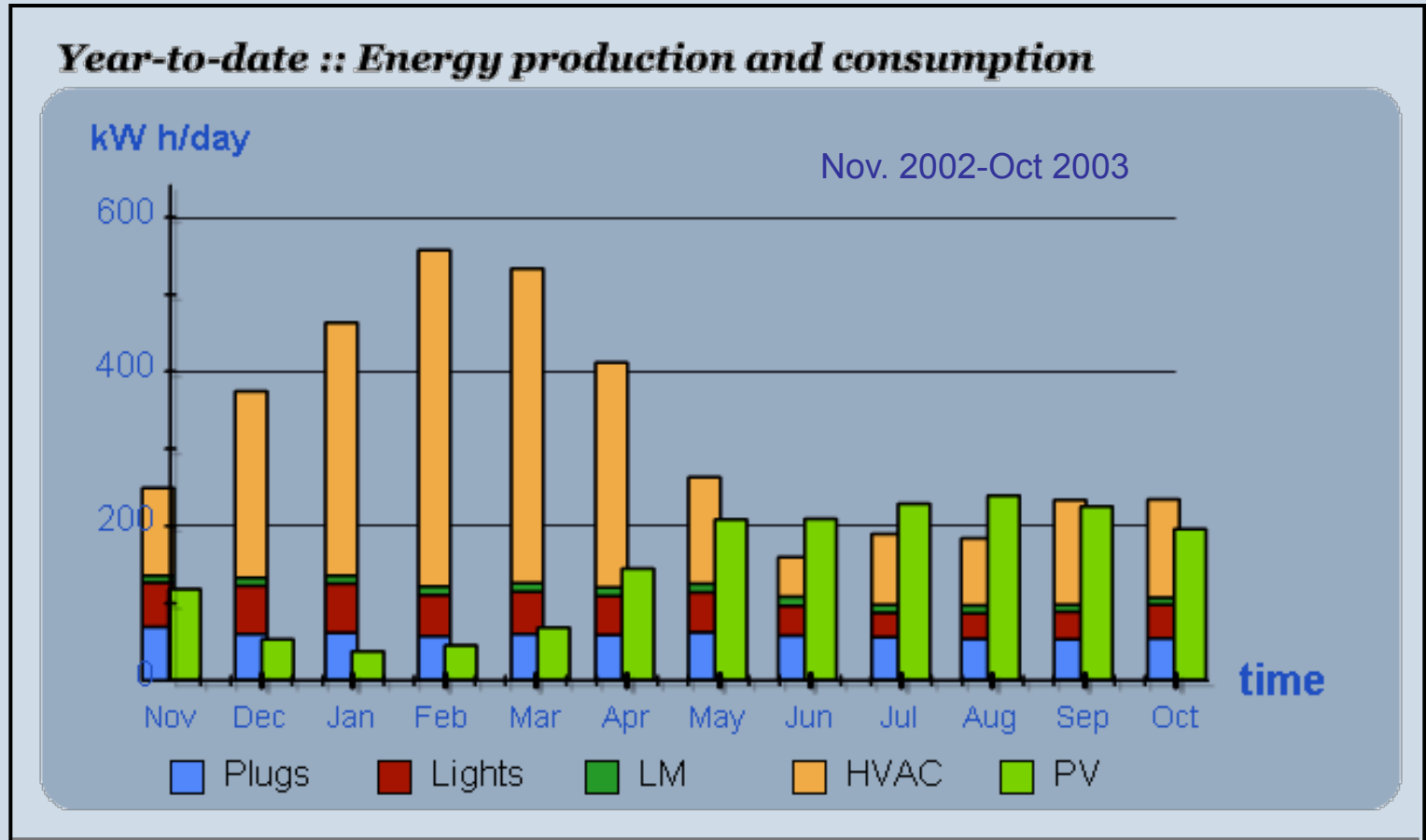
Two-Day snapshot of energy production & use (October 2003)

## *Last 48 hours :: Net Energy*



Source: J. Petersen

# Annual basis: Fails to produce enough energy

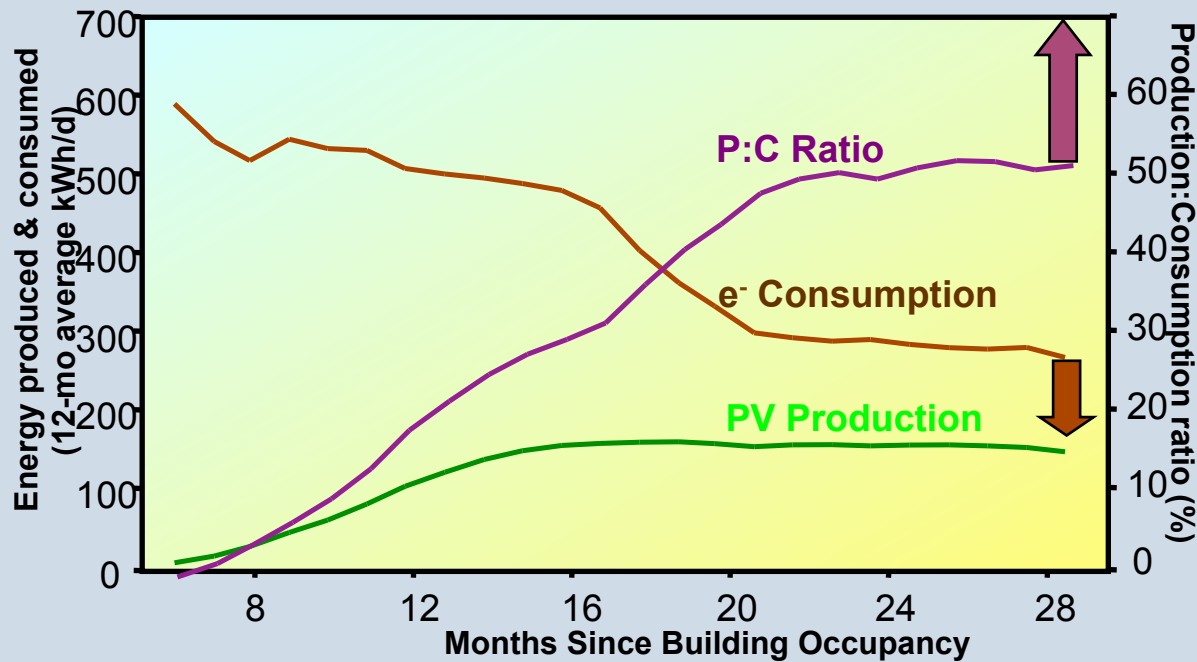


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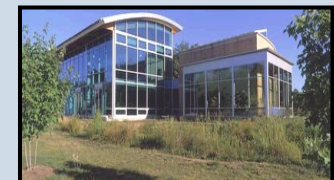


# Options for energy systems evolution

- (“Constant commissioning”)
- Fix, upgrade and expand specific technologies
  - e.g. Underfloor air distribution
- Alter control strategies
- Alter human behavior



Time

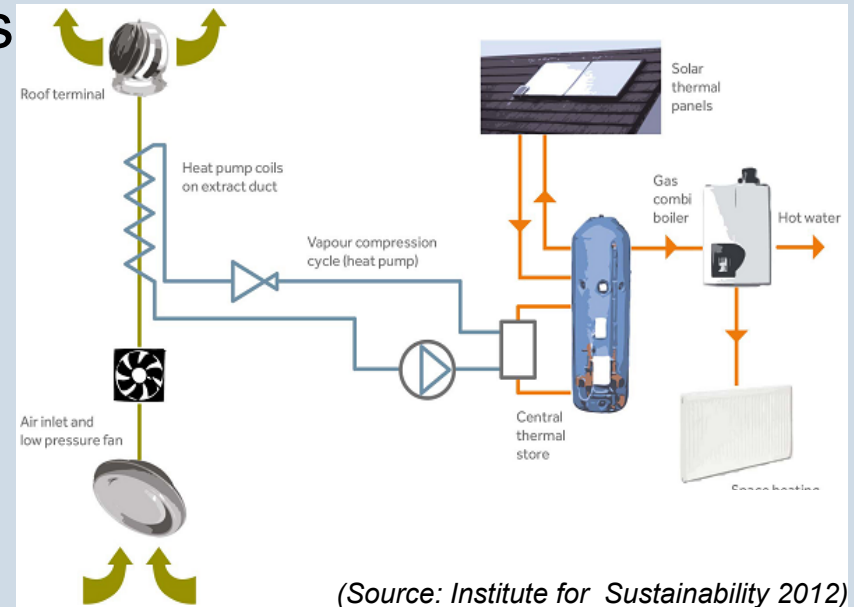


Or...add another 100 kw PV Array  
(for more than a million dollars)



## 2. UK TSB Retrofit for Future programme

- Low-carbon retrofit strategies to achieve **80% CO<sub>2</sub> reduction**
- Innovative solutions, combined systems and low-carbon measures
- Social housing tenants
- 119 building units
- 86 different projects





# CO2 CUT: Eco-renovation for research project



■ **MORE EFFICIENT:** The Victorian house in Nelson Street, Jericho, with solar panels and heat exchange units on the roof; inset, Steve Bishop, Prof Rajat Gupta and Shirley Bishop with a monitor that displays CO2 amount and temperature; Prof Gupta and Mr Bishop with equipment in the loft  
Pictures: Jessica Mann and Andrew Walmsley

## Victorian terrace's big eco makeover

■ Fran Bardsley

FROM the outside, it is a typical Victorian terrace.

But behind its 19th century facade lies the latest in 21st century carbon-cutting ideas.

That is because the Nelson Street home in Jericho has been completely eco-renovated as part of an ambitious research project.

The couple living there, Steve and Shirley Bishop, 59 and 55, have lived in the council property for 21 years.

Mrs Bishop said: "It's amazing. There are no drafts, it's much, much lighter because of the triple glazing and taking out the wall."

"The air quality's really very good, not to mention the low energy bills."

- Mr and Mrs Bishop, 59 and 55, have lived in the council property for 21 years.
- Mrs Bishop said: "It's amazing. There are no drafts, it's much, much lighter because of the triple glazing and taking out the wall."
- "The air quality's really very good, not to mention the low energy bills."
- She hopes people would be inspired by the project
- Windows — new triple-glazed windows.
  - Photovoltaic cells — 8m2 of solar panels on the roof.
  - Solar thermal hot water — tubes on south-east facing roof supply hot water to the water cylinder in the first-floor bathroom.
  - Front wall — 82.5mm internal insulation
  - Rear wall — 82.5mm internal insulation plus 200mm external insulation
  - Roof — 420mm loft insulation with airtight vapour barrier.
  - Flat roofs — 230mm loft insulation covered with a high performance membrane.
  - Ground floor — new floating chipboard floor with 10mm insulation taped to walls to ensure it is air tight
  - Mechanical Ventilation Heat Recovery — ducts in loft supplying air to habitable rooms, and extracting air from wet rooms.
  - Monovent sunpipe — to improve natural light and ventilation in the darkest part of the house

could have a basis for comparison.

"It had no insulation, very poor daylight levels and poor ventilation so we used that information to choose the strategies for the house."

"The whole aim is to find out whether existing housing can achieve a target reduction of 80 per cent carbon emissions and so far the project shows this can be done."

£10,000 to £15,000 if improvements were rolled out on a wider scale.

The majority of the savings, amounting to a reduction of 65 per cent, came from 42cm thick insulation in the loft.

A highly efficient heating system, efficient lighting and appliances brought the carbon emissions down to 75 per cent, with the remaining 10 per cent from solar water

### IN BRIEF

#### Assistance for creating a will

**W OXON:** Mencap will hold a seminar in Witney next month to offer advice to parents on making financial plans for children with a learning disability.

The Planning for the Future event will be held at Witney Town Council, Market Square on Monday September 19 between 12.30 pm and 2.30pm.

An independent legal professional specialising in wills and trusts will talk about the options for how best to leave money in a will to a loved one with a learning disability, ensuring they get the best financial support they are entitled to.

To book a place or for more details call Gina Collins on 020 7696 6925 or email [willsandtrusts@mencap.org.uk](mailto:willsandtrusts@mencap.org.uk)

#### Volunteer drive

**OXFORD:** Representatives from the British Heart Foundation will visit the Westgate Centre on Thursday in their drive for volunteers.

The charity is looking for anyone with an hour to spare and will be at the centre from 11am until 5pm.

To volunteer, contact Rachel Davis on 07879 440415 or contact [davisr@bhf.org.uk](mailto:davisr@bhf.org.uk)

#### Ambulance aid

**ABINGDON:** The Abingdon Air and Country Show, which was held in May at Dalton Barracks airfield, raised £7,000 for Thames Valley & Chiltern Air Ambulance Trust.

The event has now raised £22,500 for the charity since 2007.

### JUST SOME OF THE 'GREEN' RENOVATIONS

### A lifeline for animals

Can you give our needy animals a second chance?

The Blue Cross has many horses, dogs, cats, rabbits and small animals in need of loving new homes.



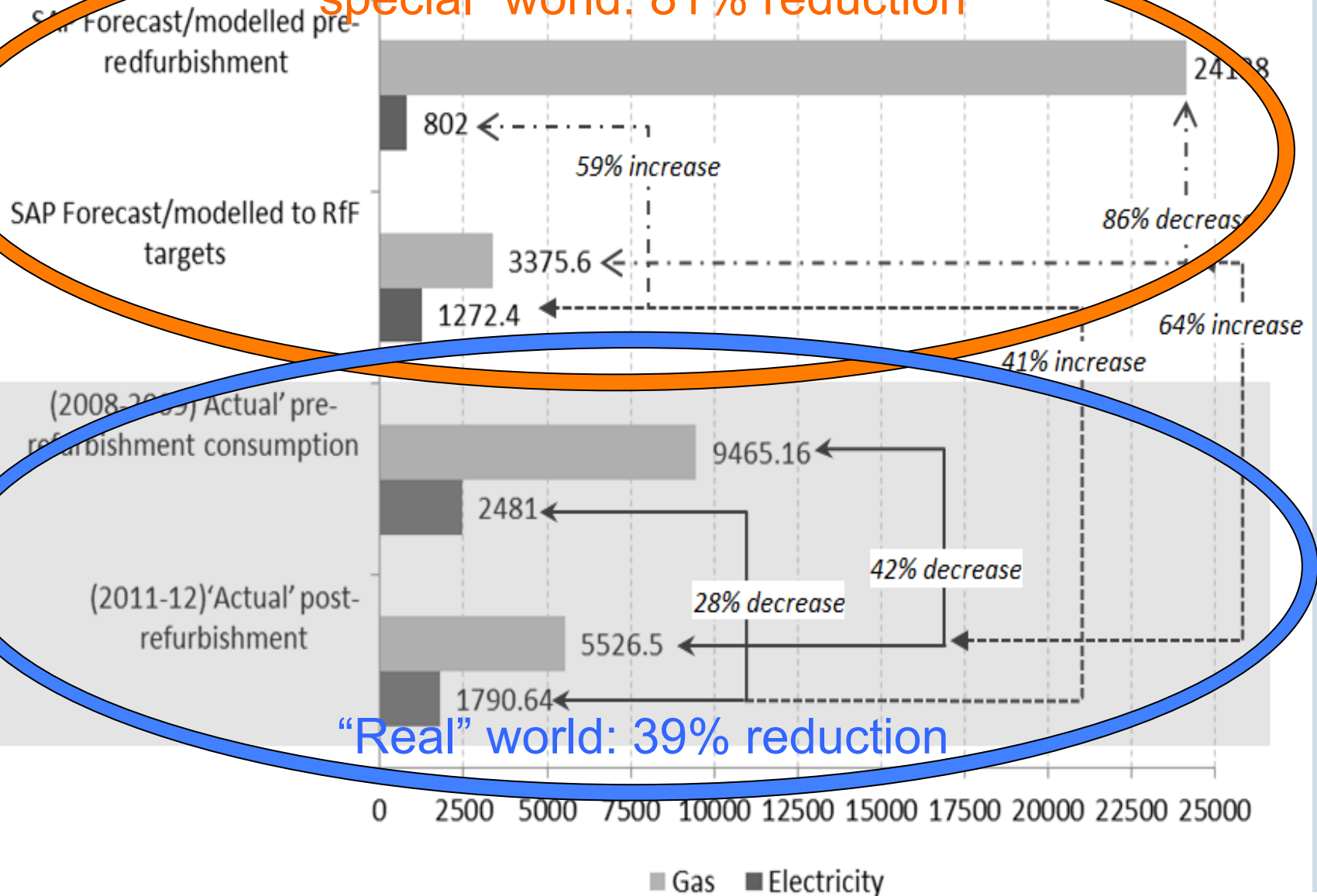
The Blue Cross  
Burford Adoption Centre



KERC



“special” world: 81% reduction



“Real” world: 39% reduction



# Heroes (?) in Practice:

- Goals not reached
- Learning stories in each case affected by requirements to tell the hero story





Is the imaginary world distracting us from the real one?



Return with  
Elixir

Ordinary  
World

Call to  
Adventure

Refusal of  
the Call

Meeting the  
Mentor

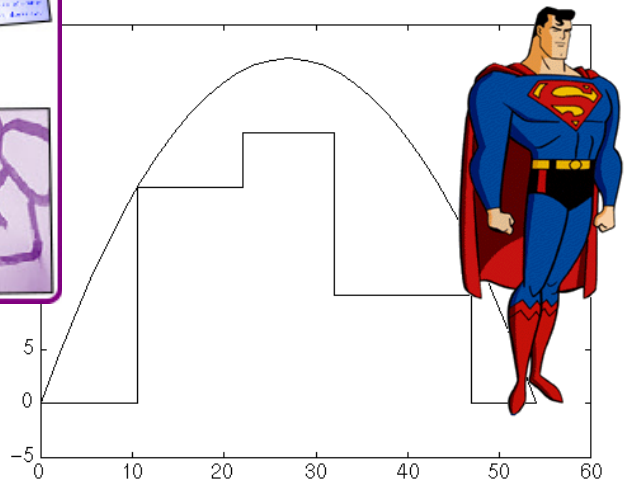
Crossing the  
Threshold

Tests, Allies,  
& Enemies

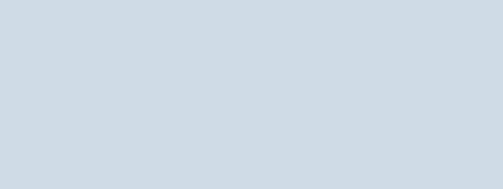
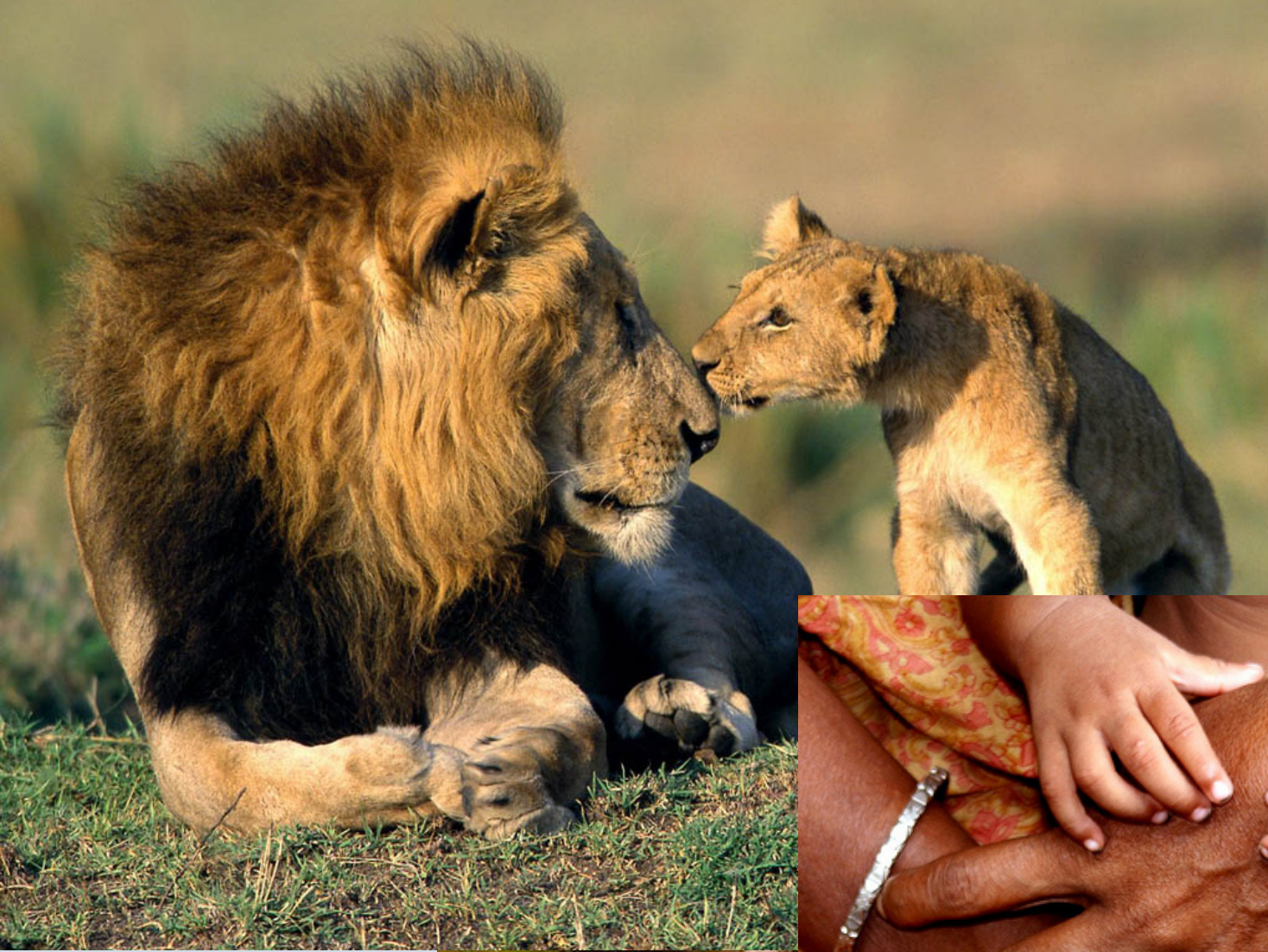
Innermost  
Cave

# The Hero's Journey

Ordinary world  
Special world

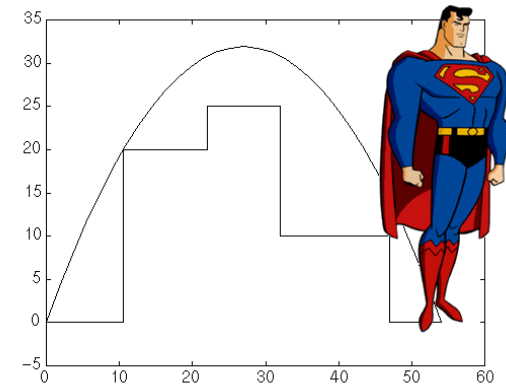
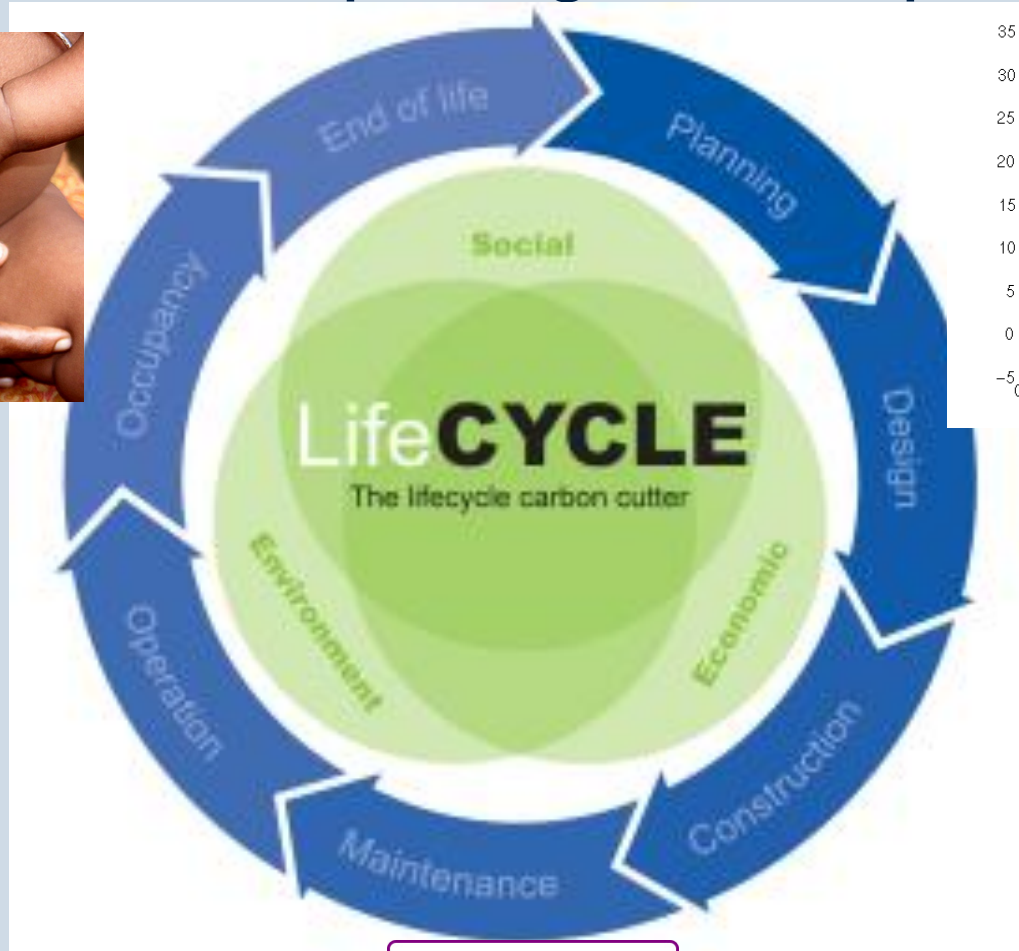






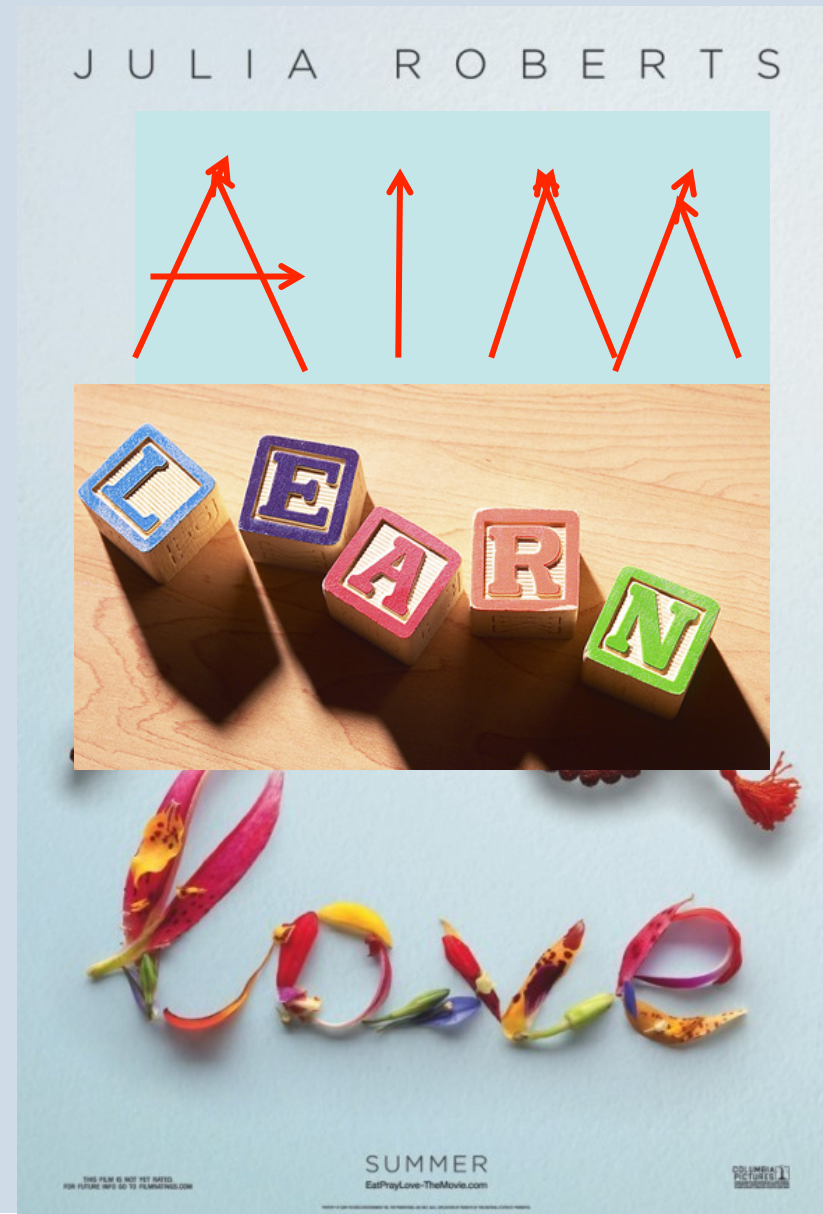


# Completing the Loop



# Conclusions

- We have one storyline
  - Hero story has some problems
  - Gets stuck in the “special world”
- Propose three storylines to better address our goals in the real world
  - Hero
  - Learning
  - Love



# Thank you!

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