



The benefits (and challenges) of LED
Technology
Tom Holmes

16th September 2026

1. ILTs overview
2. What is UV?
3. LED technology – The benefits
4. LED technology – The questions
5. Summary
6. Questions

EFK

Flykiller

ILT

Fly Machine

Insect Light Trap

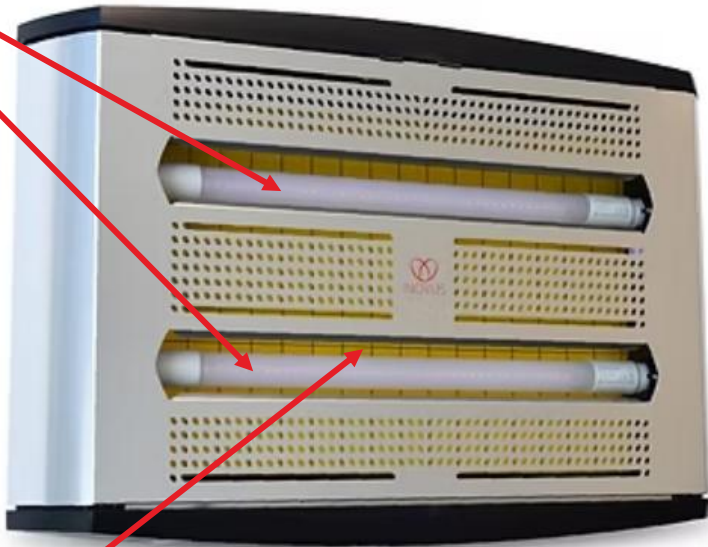
Flylite

Flytrap

The basics

Glueboard ILTs

UV source

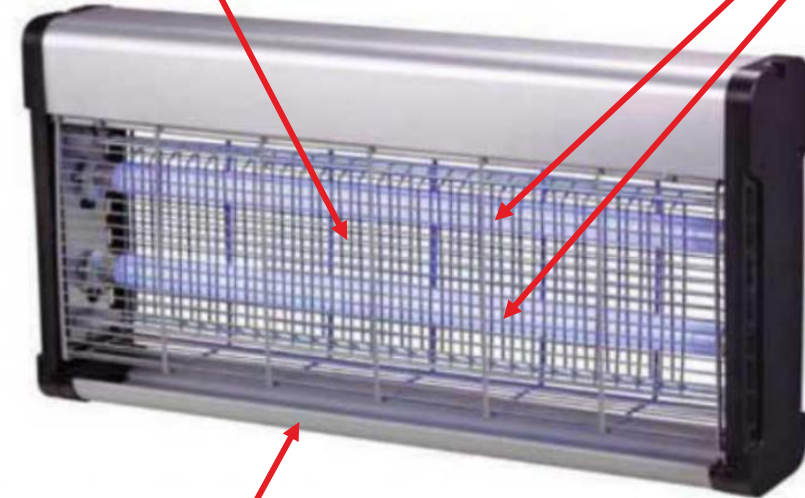


Glueboard

Killing Grid ILTs

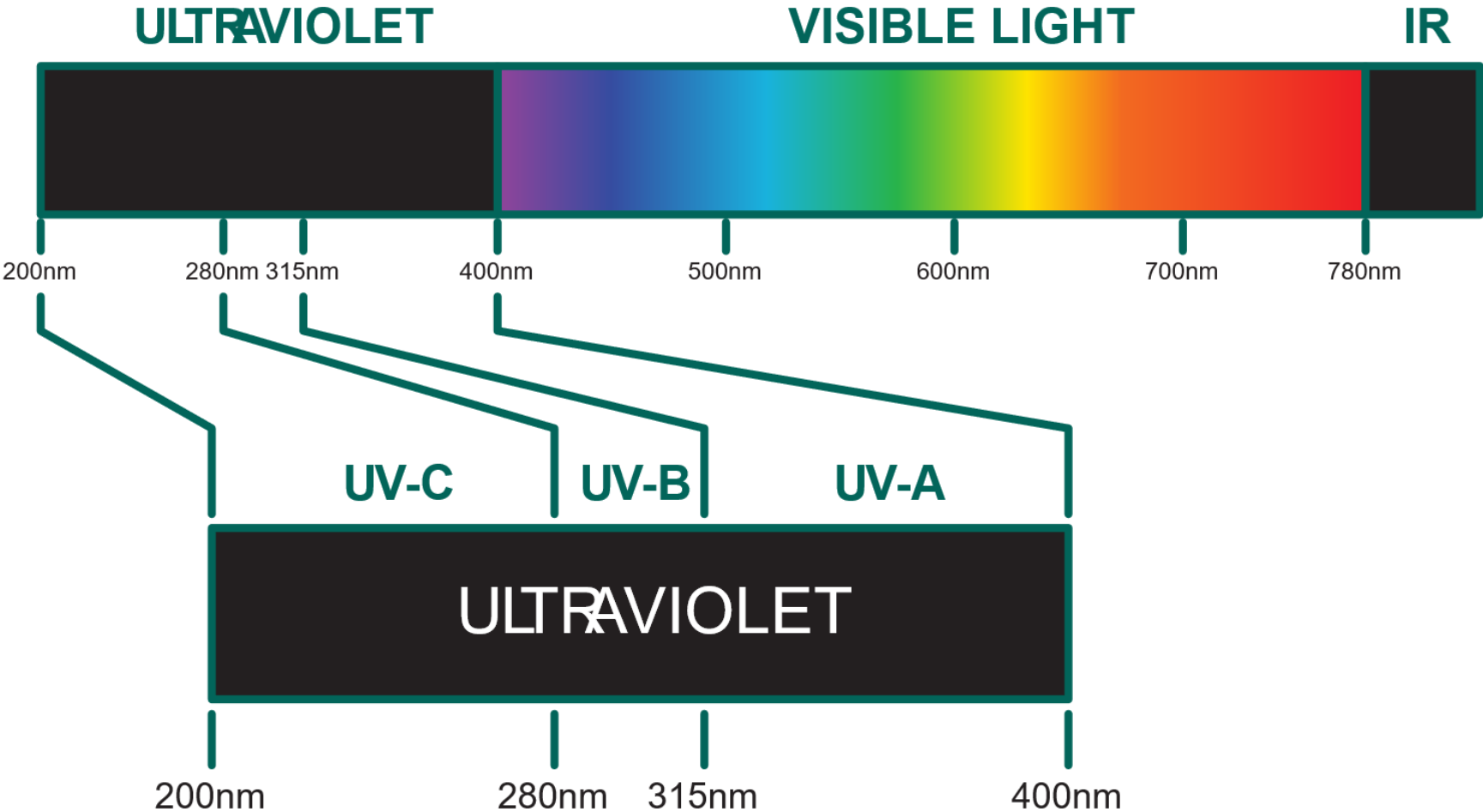
Killing grid

UV source



Catch tray

The light spectrum



Why are insects attracted to UV?

- Unclear, but almost certainly linked to flying insects' reliance upon the sun.



Heat?



Horizon?

3. LED technology – The benefits

Significantly lower power use, delivering significantly lower running costs!

Meaningful benefits to support sustainability programmes.



Ensuring ongoing supply of consumable parts given uncertainty of fluorescent lamp future.

Running costs calculation

- The running cost of an ILT is calculated by multiplying the power draw, electricity cost and use time together.



Power Draw: 41.7w

Power Draw (kw)

Daily use (hrs)

$$0.0417 \times 0.30 \times 24 \times 365 = \text{€}109.59$$

Electricity cost (kwh)

Annual use (Days)



Running costs calculation



41.7w Traditional killing grid ILT

$$0.0417 \times 0.30 \times 24 \times 365$$

$$= \text{€}109.59$$



9.0w Inovus™ EN30 LED

$$0.009 \times 0.30 \times 24 \times 365$$

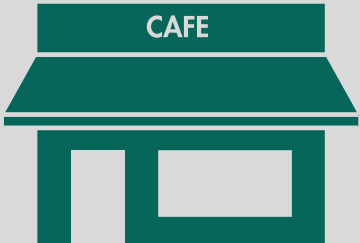
$$= \text{€}23.65$$

$$(-\text{€}85.94)$$



5. LED technology – The benefits

Running costs



1x ILT

-€86



10x ILTs

-€860



100x ILTs

-€8,600



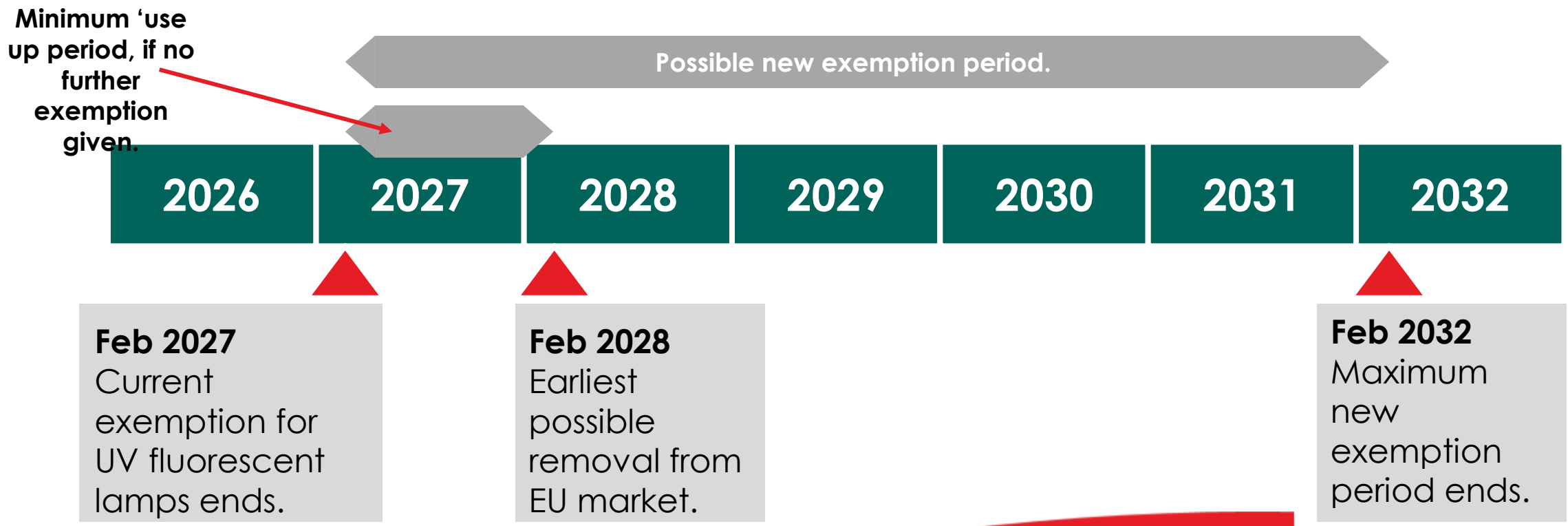
1,000x ILTs

-€86,000

RoHS

Will fluorescent lamps be banned?

- Probably, but not for at least 2 years.



Will fluorescent lamps be banned?

- Likely availability after February 2028.
- But likely implications to fluorescent lamps:
 - Cost increases through reduced volume.
 - Supply chain challenges of component parts.
 - Discontinuation of lamp types.
 - Restricted availability through reduced capacity / demand.



3. LED technology – The benefits

Sustainability

- There are numerous sustainability benefits to LED technology:

- ✓ **Lower power draw** = Less electricity use
- ✓ **No mercury content** = Reduces risk to aquatic life
- ✓ **Three-year life** = Less CO2 emissions in production
= Less CO2 emissions in transport



Additional benefits

- There are many additional benefits to LED technology:

3-year life



- ✓ **Less purchasing administration.**
- ✓ **Less stock:**
 - Reduced space requirements.
- ✓ **Quicker servicing:**
 - Improved profitability.



4. LED technology – The questions

Potential dangers of LED technology

- There are multiple **potential** benefits of LED technology.
- However, you **must** be comfortable with:

i) Insect catch

ii) Lamp availability and service

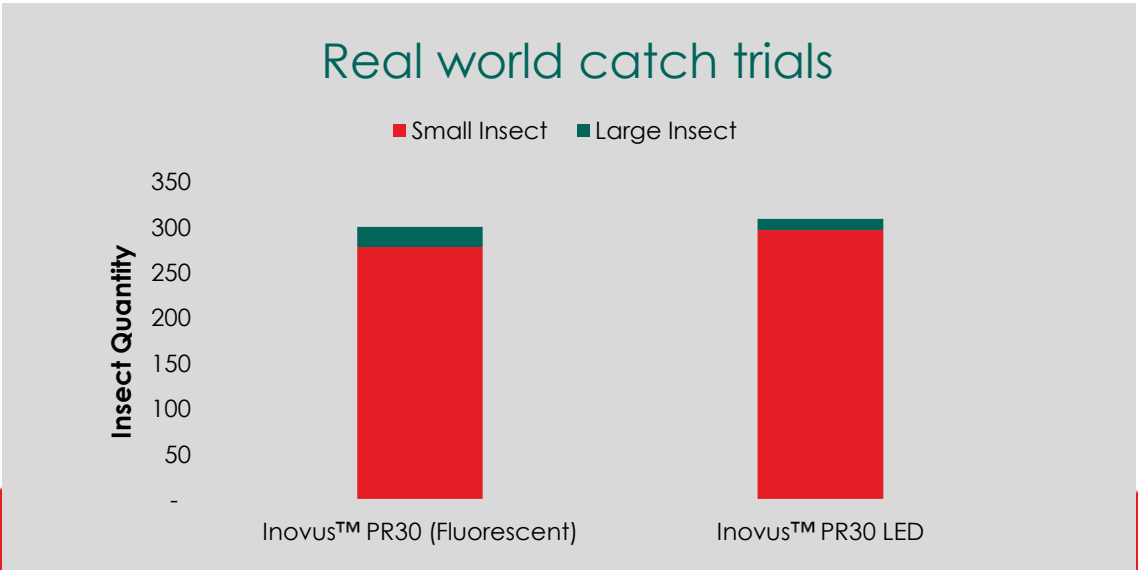
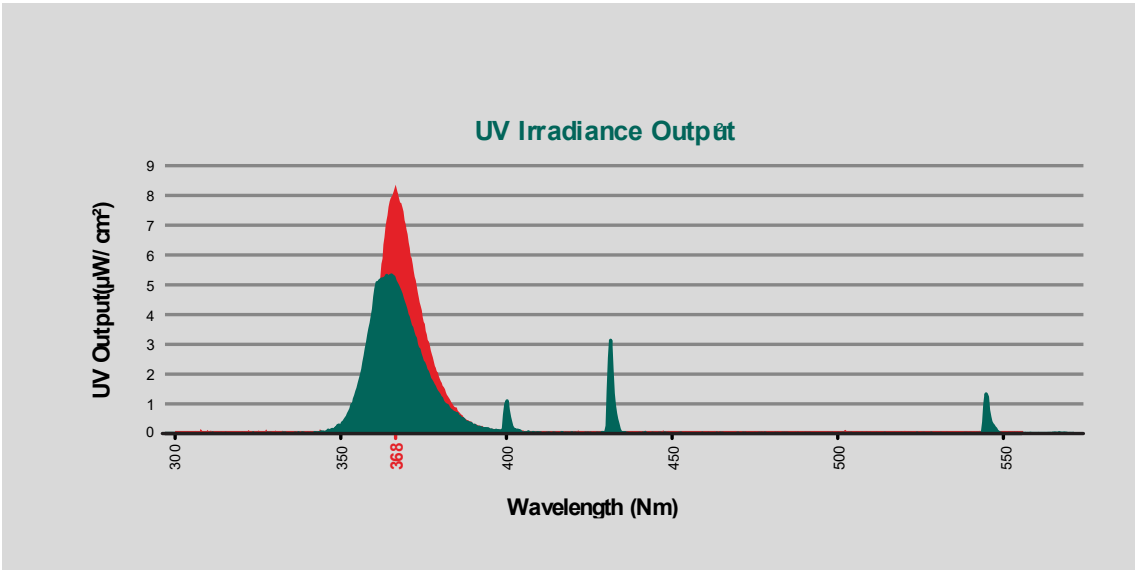
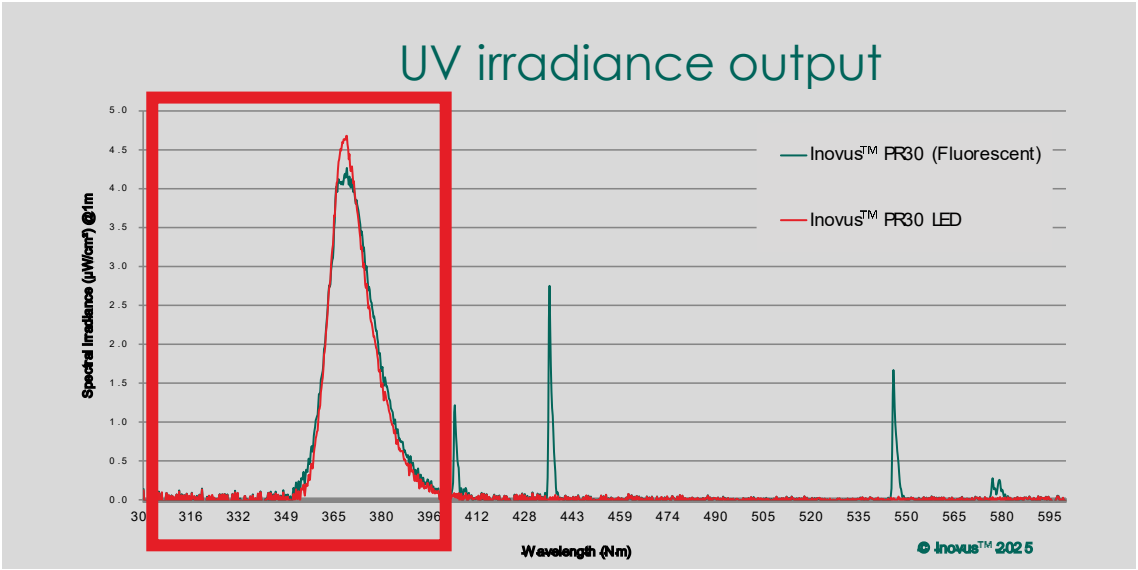
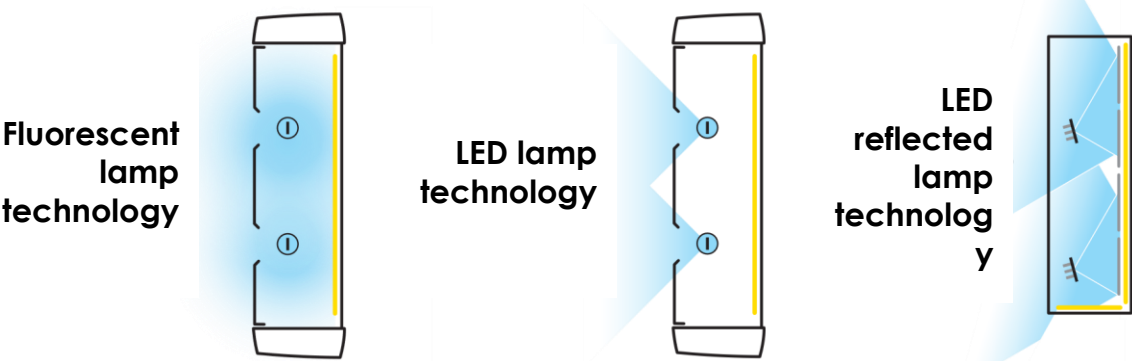
iii) Total life cost and business model

iv) Lamp reliability and visual



4. LED technology – The questions

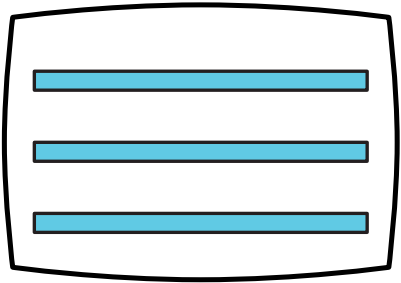
i) Insect catch



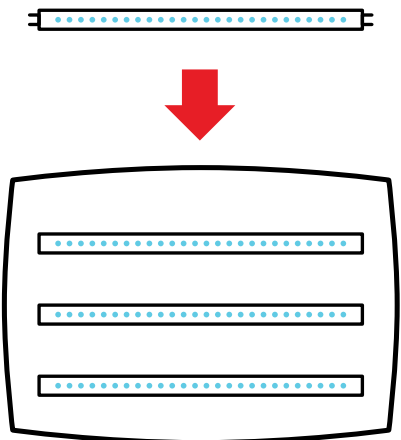
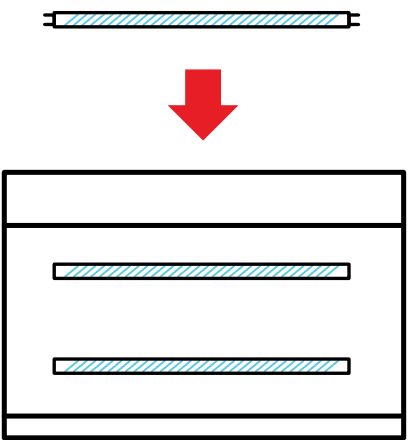
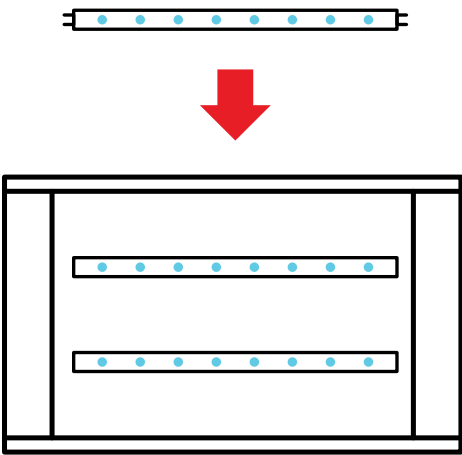
¹ Based upon 15w 18"

ii) Lamp availability and service

Fluorescent
Lamp ILTs

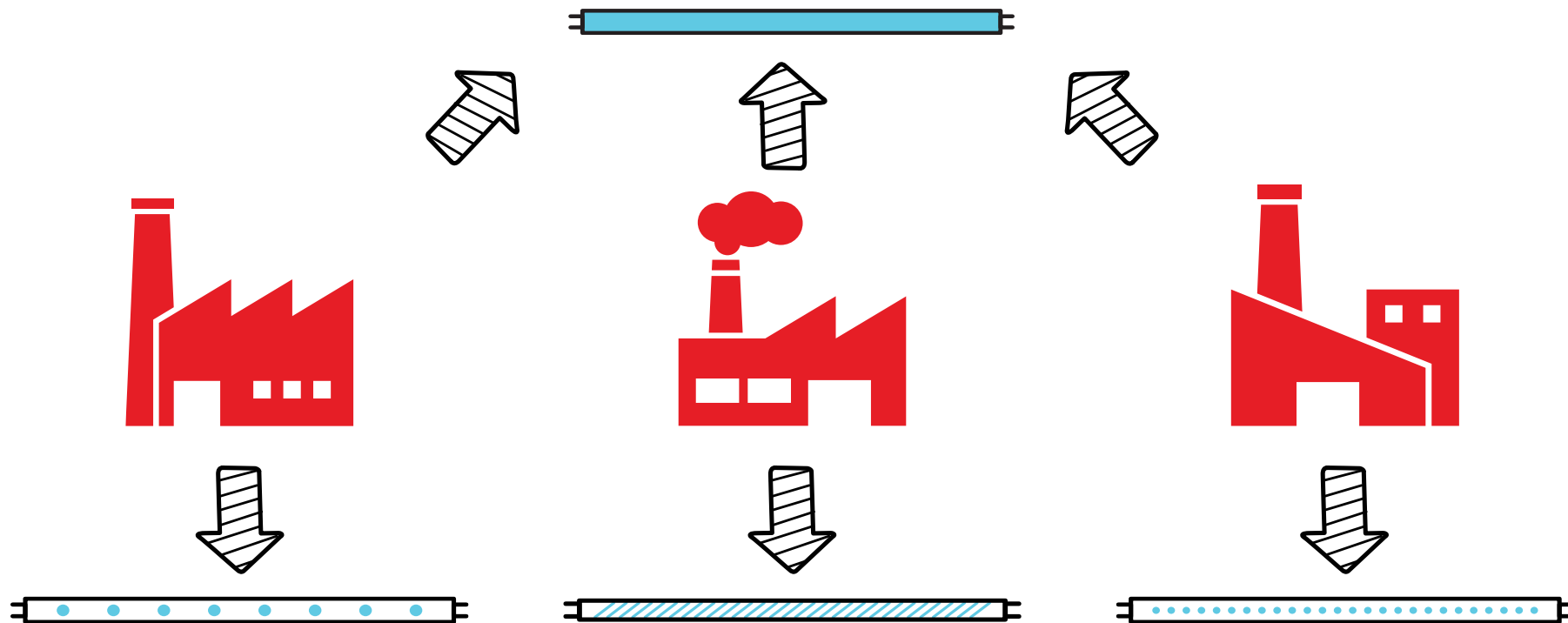


LED lamp
ILTs



ii) Lamp availability and service

Fluorescent
Lamps



LED
Lamps



Ongoing price



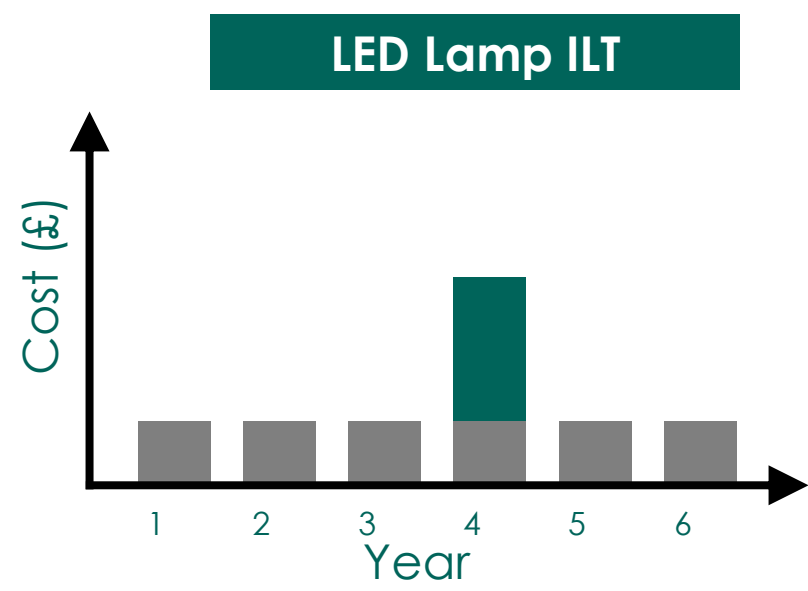
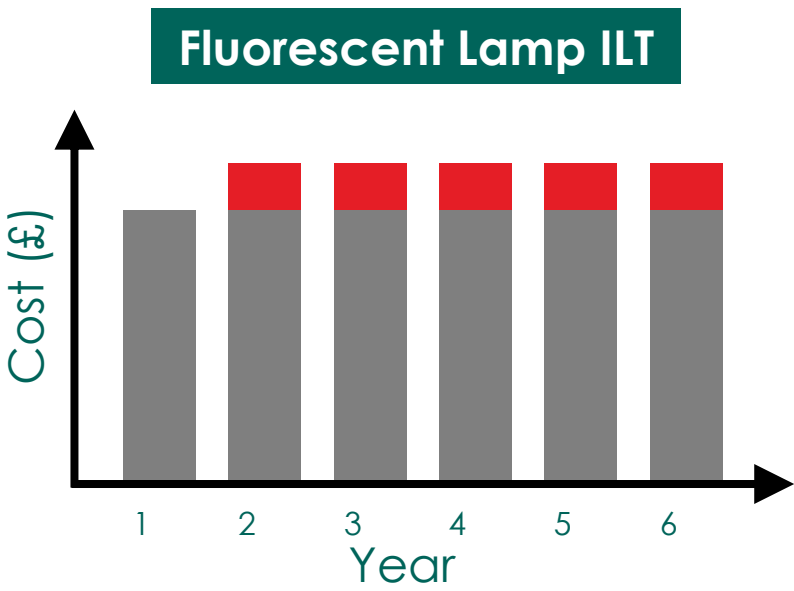
Multiple sources



Stock cover

iii) Total life cost and business model

TOTAL life costs = Running cost + cost of replacement lamps



Annual running cost
 Replacement fluorescent lamps cost
 Replacement LED lamps cost

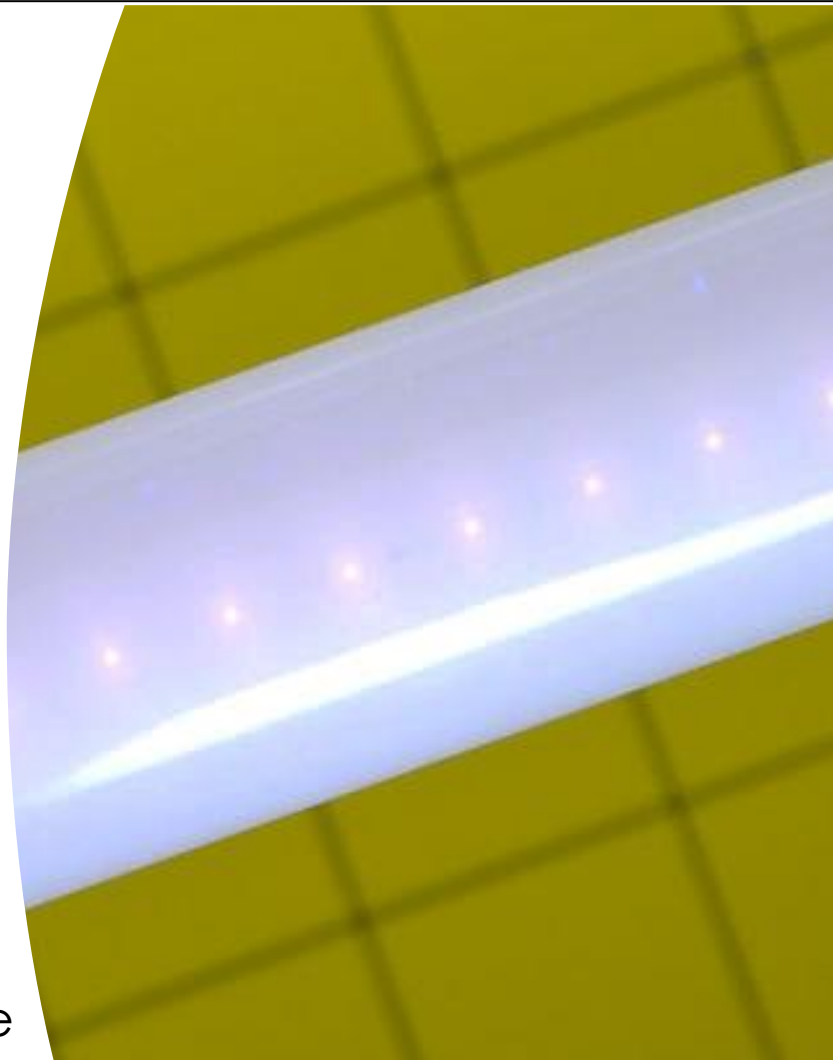
✓ Running cost

✓ Lamp cost

✓ Business model

iv) Lamp reliability and visual

- The multiple LED approaches now available bring significant implications:
 - ⚠ Low number of high-power LED chips, increasing strain and reducing reliability / life.
 - ⚠ Plastic tube materials can discolour and degrade over time, causing cracking and reduced UV output.
 - ⚠ Intrusive spot glare from clear tubes and/or low number of high intensity LEDs.
 - ⚠ External LED drivers may need replacing during the life of the



Lamp material



Lamp reliability



Lamp visual

Unnecessary scrapping equipment

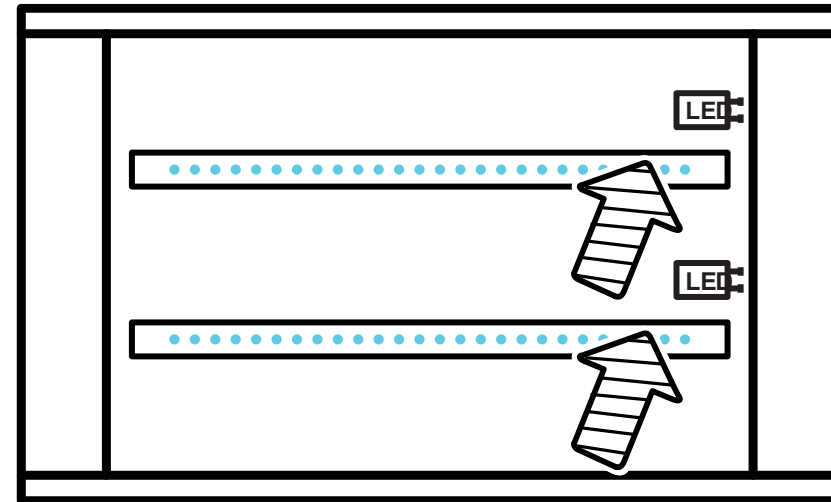
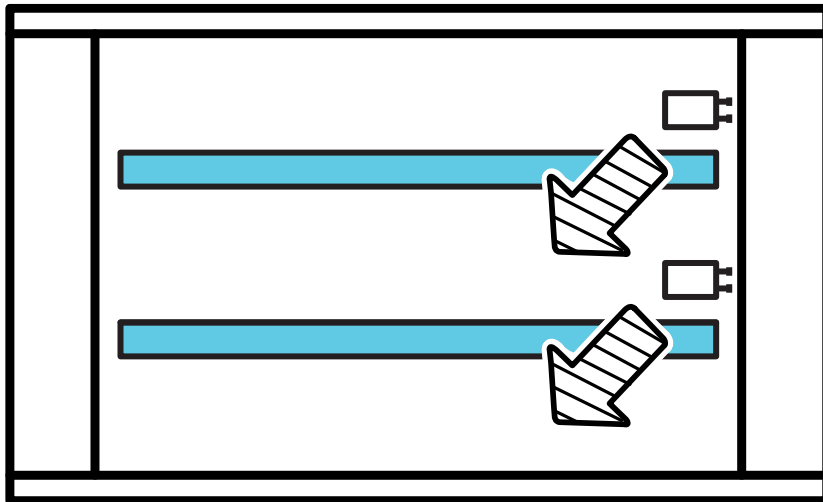
- Strong motivation for PCOs and end users to move to LED.
- However, for cost and sustainability reasons, ripping out working ILTs and replacing them with LED models might not sit comfortably.
- We do have options, to manage the transition sensibly, over time:

Retrofit LED Lamp



Unnecessary scrapping equipment

Retrofit LED Lamp



✓ Lamp material

✓ Lamp reliability

✓ Lamp visual

1

NO IMMEDIATE FLUORESCENT BAN

- ✓ EU exemption was to expire Feb 2027
- ✓ Now extended until Feb 2028
- ✓ Strong chance extended for 3-5 years

2

BIG BENEFITS OF LED TECHNOLOGY

- ✓ Potential huge energy/cost savings
- ✓ Future proofing UV lamps supply
- ✓ Improved sustainability
- ✓ 3-year life: Purchasing | Cashflow | Space

3

QUESTIONS OF LED TECHNOLOGY

- ✓ Insect catch efficacy
- ✓ Multiple UV lamps required (POs / Stock)
- ✓ Total life costs
- ✓ Unnecessary scrapping of ILTs

4

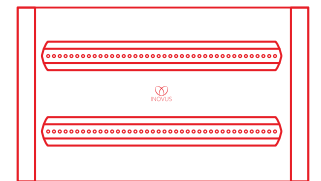
TRANSITION OVER TIME



Fluorescent ILT



Retrofit LED Lamps



LED ILT



Any questions?