

# OLED TRACK IV: DEVELOPING OLED LIGHTING PRODUCTS – OLED Products for Smart Systems

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# Smart OLEDs – [Where do OLEDs Fit into the Light of Things?](#)

- Being smart is not always being intelligent.
- Need to really understand all of the implications and pros and cons of the choice(s) of being connected.
- Not all choices are created equal. Not all 'Smarts' are the correct or right solutions.
- Be intelligent, networked, connected...SSL opens up unprecedented neat, cool and 'such' opportunities.
- Be realistic – LEDs can do a lot of things and will continue down that path including smart, connected IOT light sources – OLEDs should too.
- Be inclusive and not exclusive.
- Should look for system opportunities for OLEDs.

# An OLED Panel with an InnoSys Driver



Smart Desk/Task Lamp  
(older version)

Note: There are  
much prettier  
OLED desk lamps  
including the ones  
represented here  
by others on this  
panel.

# InnoSys Light Focus

- InnoSys' focus is on intelligent, connected, networked, interacting (etc.) SSL products and systems.
- This focus is on creating, being and staying green (the word green has many meanings in this context) while also hearing the voice of the customer and providing a positive light experience.
- ROI/PB is a critical consideration as is up-front costs.
- Driven by metrics, logistics, payback, pain...
- The equation of light... – see InnoSys' Strategies in Light (SIL) presentation in March 2016.
- Interesting interacting lights with interesting, interacting electronics.

# LEDs & OLEDs (Not LEDs vs. OLEDs)

- There is no denying that there are certain 'scientific' things and certain 'personal' things when it comes to lighting (according to me).
- Yes, it is possible for LEDs and OLEDs to exist and even be friends – really good friends.
- Focus on cost-down of OLEDs – for the most part not much else matters except for the niche “price-insensitive” applications/markets.
- Need to differentiate, define, focus and go forth.
- Let OLEDs complete LEDs – not compete against each other – focus on strengths.

# An Example of LED and OLED Co-existence



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- Driver companies pay OLED luminaire manufacturers to use the drivers ('problem' with long term – and maybe even short term – business model for the Driver companies  
Also problem with Laws of Business)

# How Can Drivers Potentially Make OLED Products Compelling

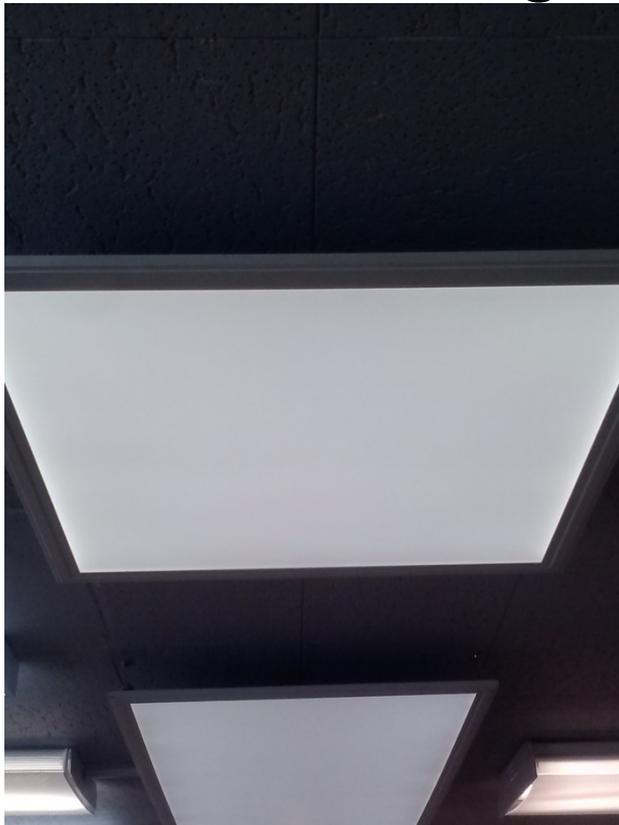
- Drivers for OLEDs can optimize and exploit the wonderfulness of OLEDs.
- Drivers can fully interact and make OLEDs part of a system or systems – connected systems – that make OLEDs and LEDs more than the sum of either one alone. Drivers can exploit and fully support OLED form factors and uniqueness, etc.
- Drivers cannot do it all: OLEDs can and need to continue to increase Lm/W to push into the world of incentives. This will also assist in cost-down of OLEDs.

# Toward the Future

- How Light is viewed is changing which is fitting in the Year of Light – Light as a Service (LAS).
- Being Future-Proof is also very important.
- Should not be afraid of LEDs – embrace them and follow along with (and ahead of) them too.
- Again, OLEDs should complete LEDs.
- Focus on making OLEDs cost-effective/justified.
- **GaN is really tough and amazing – Are organic molecules as tough as GaN?**
- In the future (10-20 years or less?), OLED panels should have the potential to cover walls and ceilings and floors (etc.) at low cost.

# How Can OLED Products Become More Compelling – Be Part of a System

OLEDs are probably not going to replace LED 2x2 and 4x2 panels anytime soon (although OLEDs might be able to do it better).



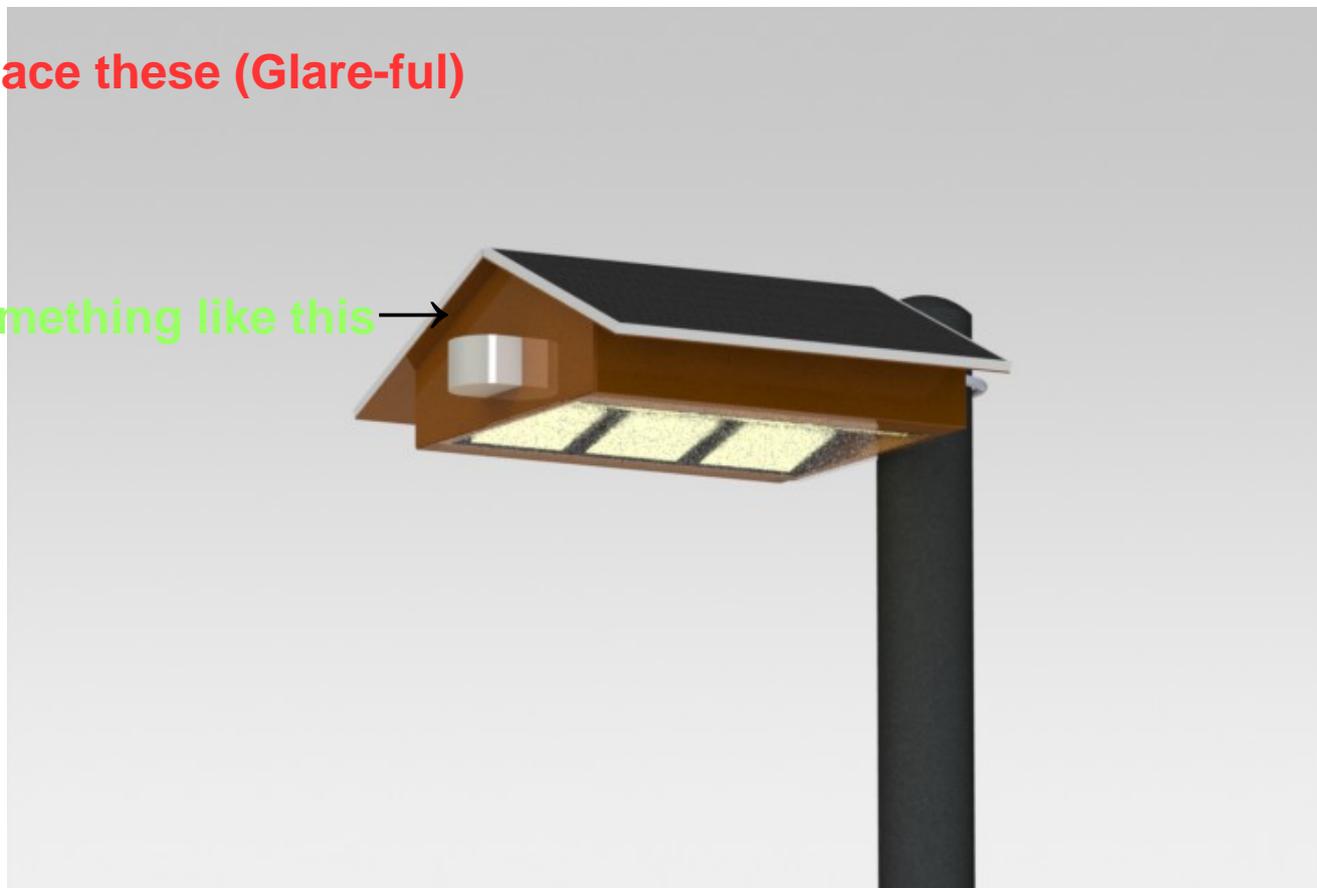
Or many other types of edge emitting applications.

# Potential System or Standalone OLED applications



← Replace these (Glare-ful)

With something like this →



There are many, many more system applications (as well as some stand-alone applications) for OLEDs where OLEDs do make sense, very good sense.

# Upshot Summary Conclusion

- OLEDs have great and arguably potentially untapped potential!

(yes, potentially potential!)

- OLEDs can be a valued contributor in SSL system applications where LEDs and OLEDs coexist in harmony.
- May OLEDs and OLED products live long and prosper in 2016 and beyond...

## Thank you!