



eblanaphotonics

Discrete Mode (DM) Lasers Optical Sensing Redefined

www.eblanaphotonics.com
Dublin, Ireland

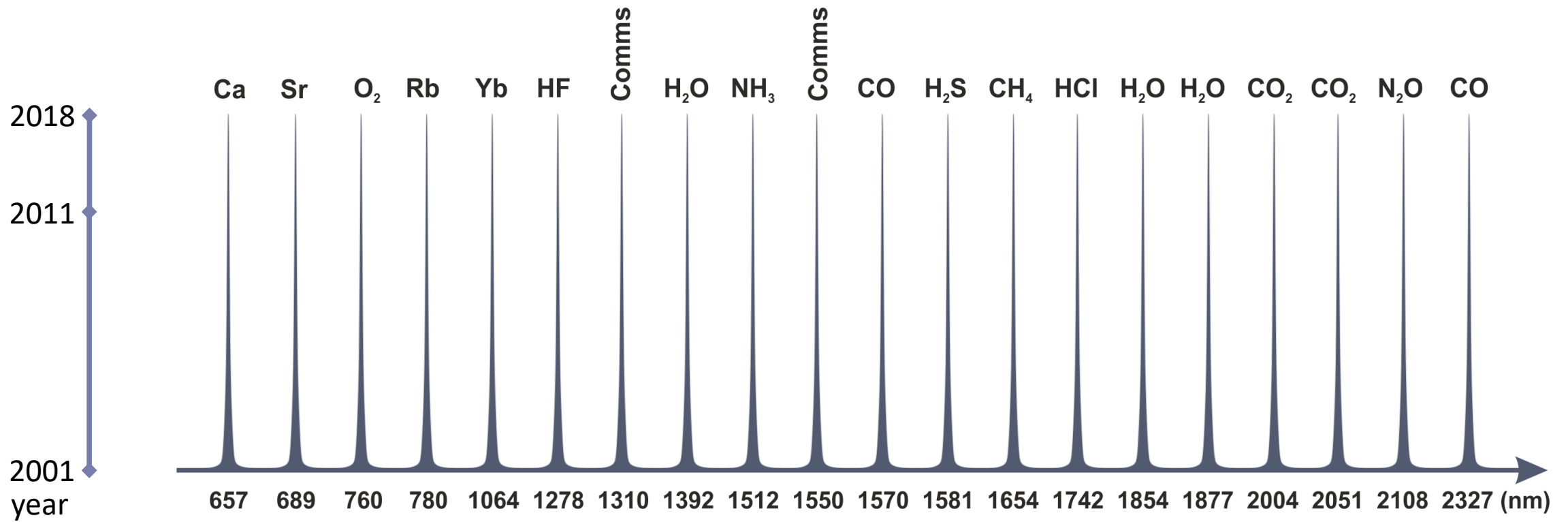


Established 2001
Dublin, Ireland

IP protected over **15** patents
25 employees

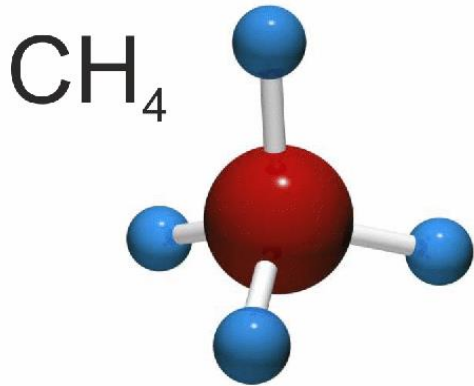
Core technology developed at **Tyndall Institute** and **Trinity College Dublin** (Semiconductor Photonics Group)

The Wavelengths. 657 – 2350 nm.



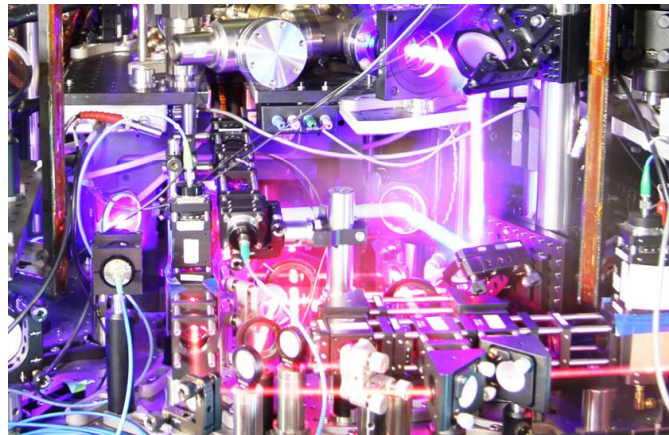
Sensing

High sensitivity detection: **Gas Sensing, Medical, Security & Defence, Aerospace, Industrial, Research.**



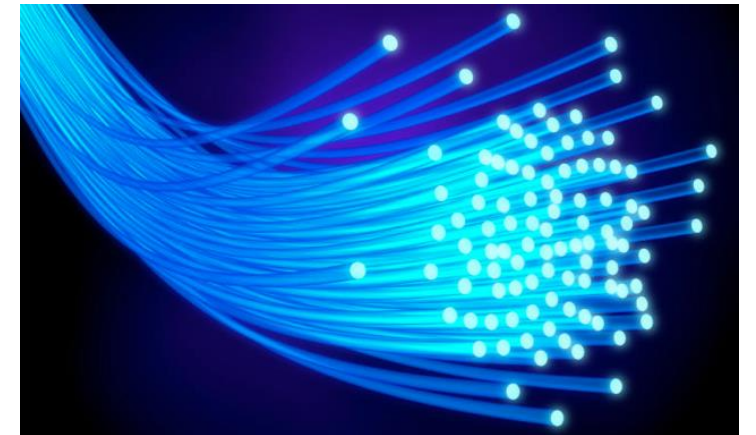
Metrology

Extremely **narrow line widths** (100kHz) for ultra-precision atomic clock, LIDAR, interferometry, test & measurements.

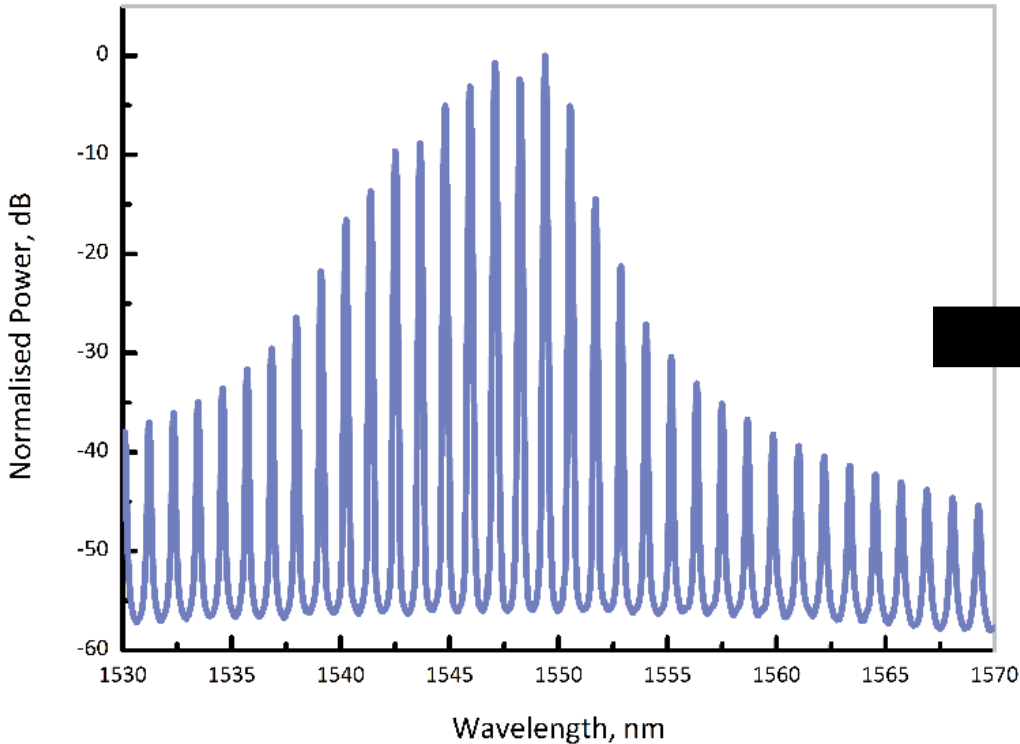


Communications

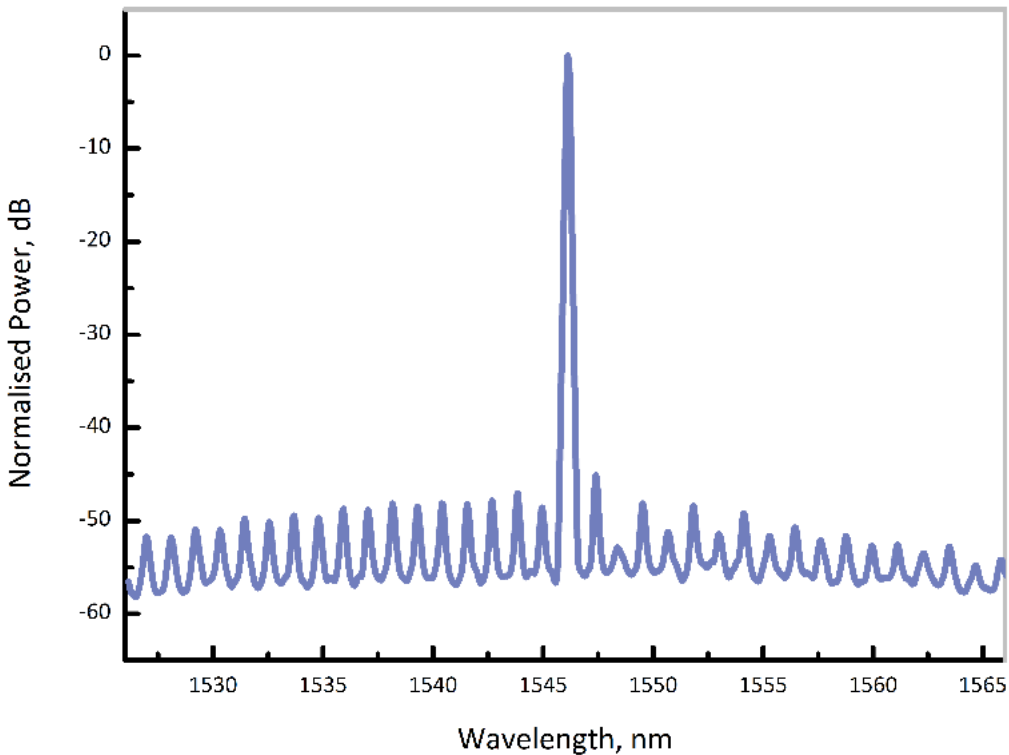
Eblana has been supplying lasers into the high volume, **fiber optic communications** industry for more than a decade.



FP Laser

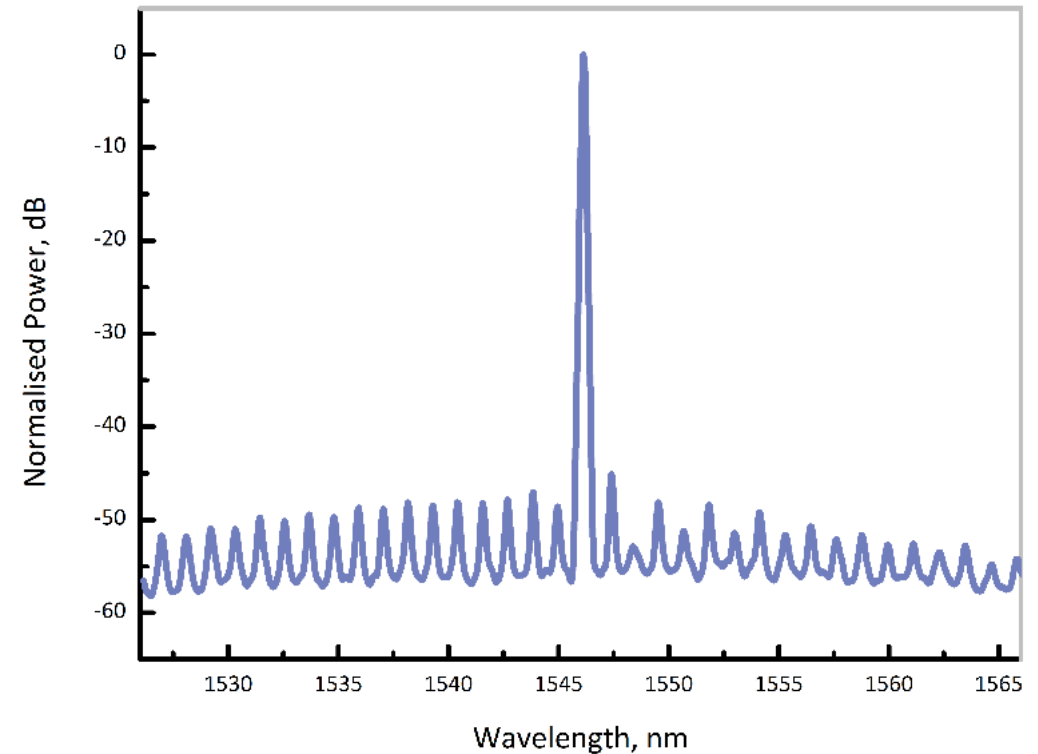


DM Laser



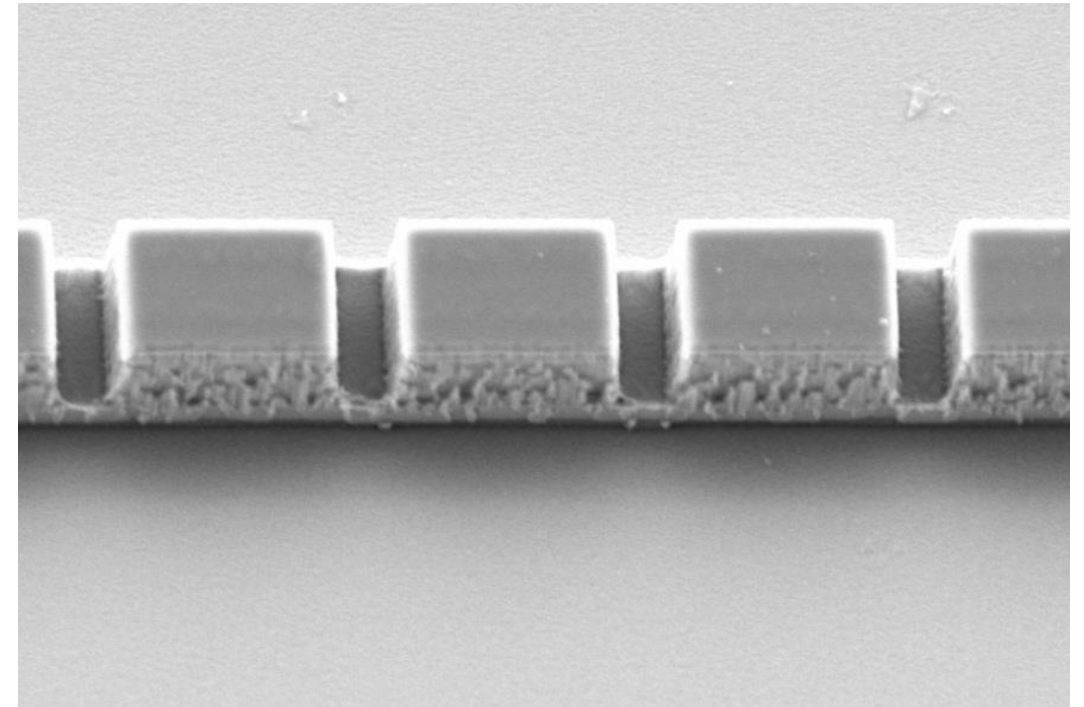
DM Laser

- Surface level lithography etches periodic features into ridge of RWG laser diode.
- Index perturbation creates loss condition for all FP modes except targeted wavelength of interest.
- Excellent Spectral Purity, SMSR, tuning results.



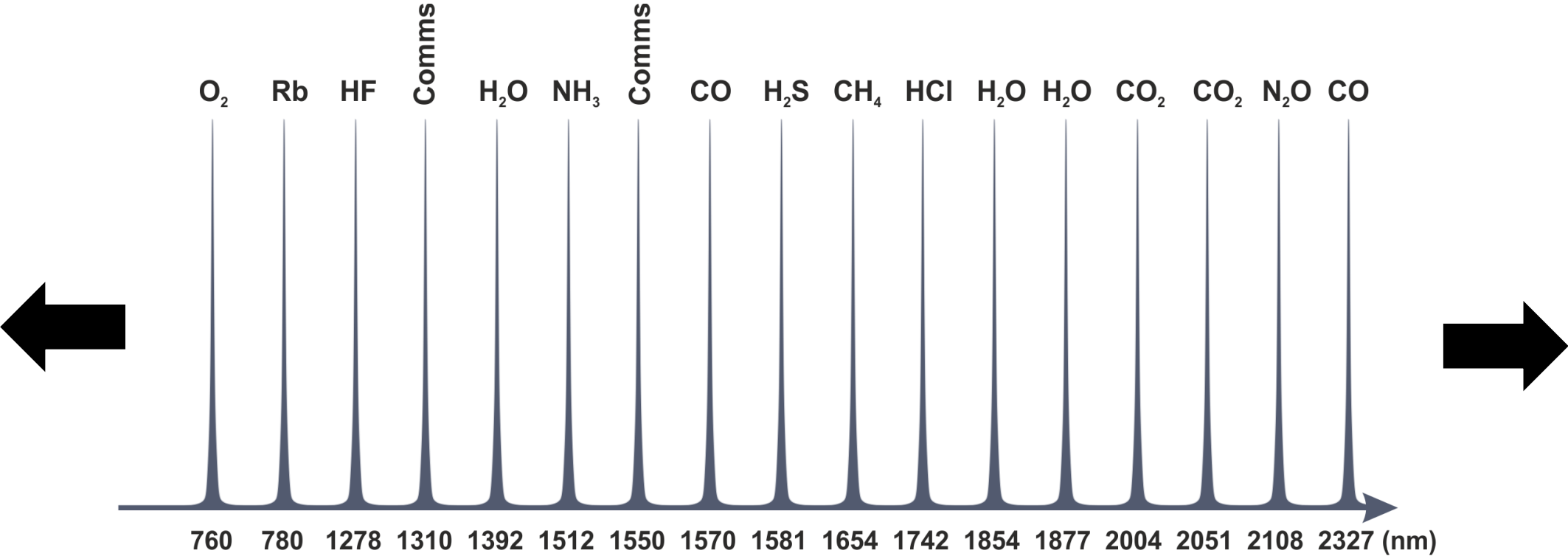
DM TECHNOLOGY *ADVANTAGES*

- Simplified Manufacturing Process
- Consistency and Uniformity
- Monolithic Low Linewidth
- Flexibility
- Scalability



What's Next?

DM Technology is Material Agnostic.





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