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5G Optics: China Slowdown, Mature Solutions, and Case Study

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EPIC Meeting - Commercial Challenges for Photonics as 5G Booms

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5G Fronthaul/Midhaul Optics Could Lose a Lot of Its Luster

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- From intelligence starting several months ago
- Big pullback in Chinese gov’t spending on 5G
  > Regarding deployment plans, not tech investment
- Chinese transceiver/chip vendors nervous
  > Need for new designs has cooled off
- No 5G buildouts, if Huawei cannot benefit
- Could last a while even with political changes
  > Great amount of photonics in inventory at MNOs

Emphasis Now on Mature Optics in 5G Space

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- Off-the-shelf gear
- Fast scaling to volume
- No costly learning curves
- Very minor refinements
- Limited differentiation
- 5G-targeted photonics shouldn't be ruled out
  > PIC designs will require new, adequate justification
- Possible use of 400ZR/100ZR
  > Former for lower-price potential; latter for brownfield

Why PICadvanced is Exception in Europe

- Most scathing criticism from Europeans
- NG-PON2 readily dismissed as limited opportunity
- View that technology leaps are key to success
- Too many projects government-driven, especially by public-private partnerships

> By career civil servants lacking intimacy with solutions
> Fixed time frames for various stages of development without rhyme or reason
> Half-baked productization with limited market impact

Receiving Funds from Verizon Ventures

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- NG-PON2 attractive because of limited attention
- Evolutionary rather than revolutionary approach
- Driven by operator with track record for innovation
- Calix with smart leadership all in on NG-PON2
- Artificially high costs provided attractive opportunity
- Dealing with tunability matters sufficiently challenging
- Increasingly higher barriers to entry for other competitors
- Potential for greater differentiation with later gens

For PICadvanced

Thank You!