Tb/s project: November 2016 Review
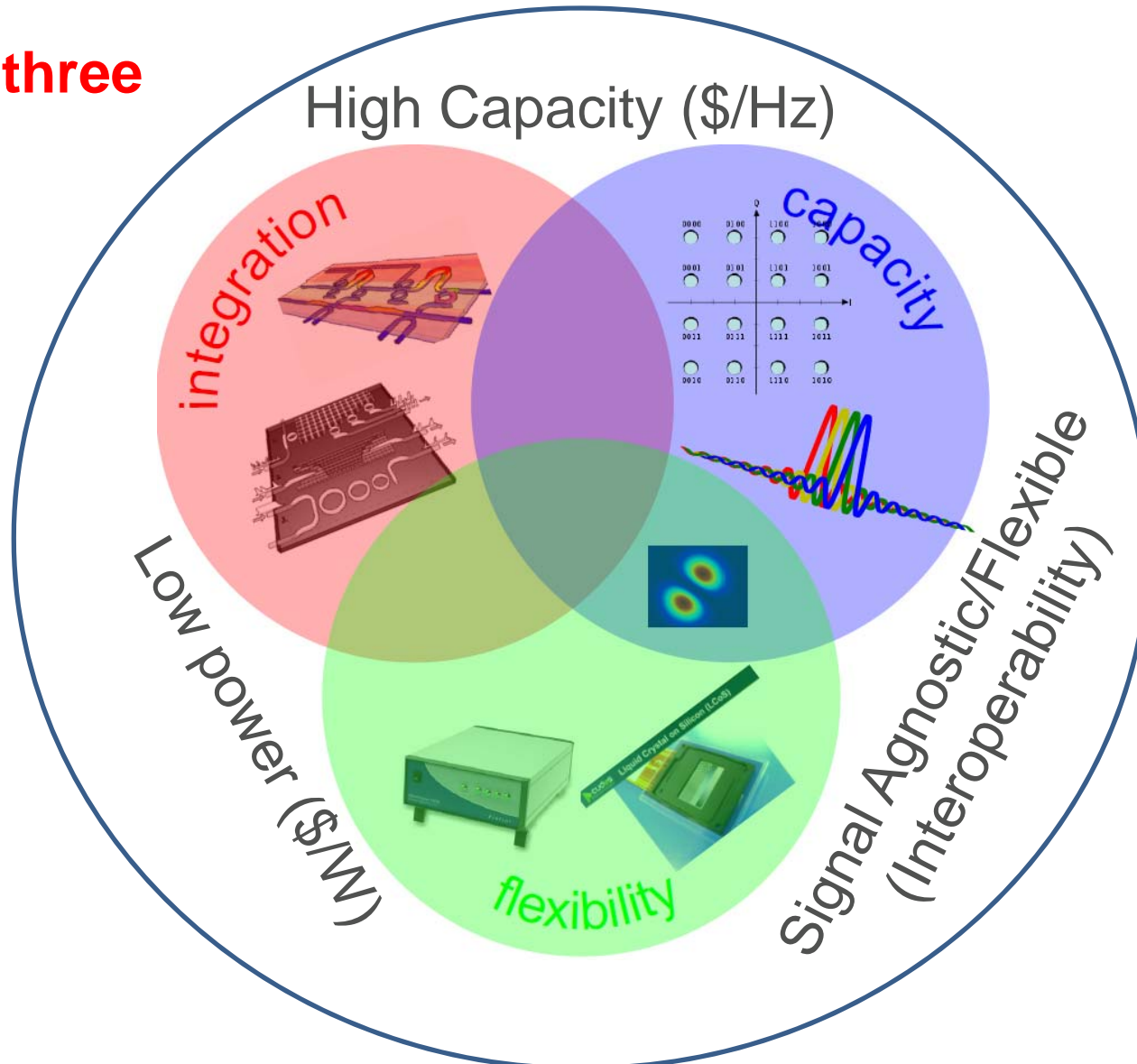
Science Leader: Prof. Arthur Lowery

Project Leader: Dr Bill Corcoran

Dept. Proj. Leader: Elais Giacoumidis
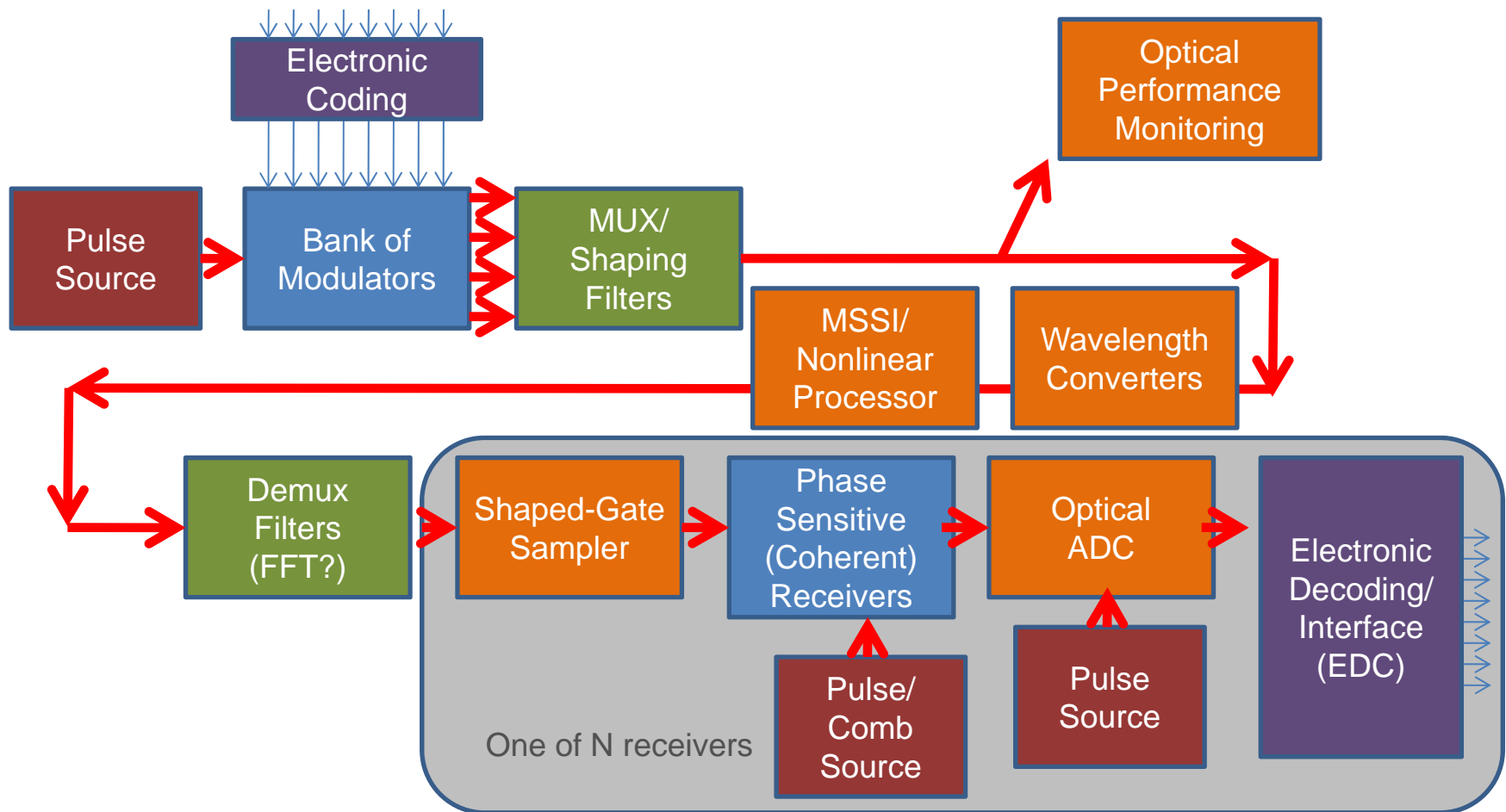
What's *the* big issue with telecoms?

There are three (at least!)
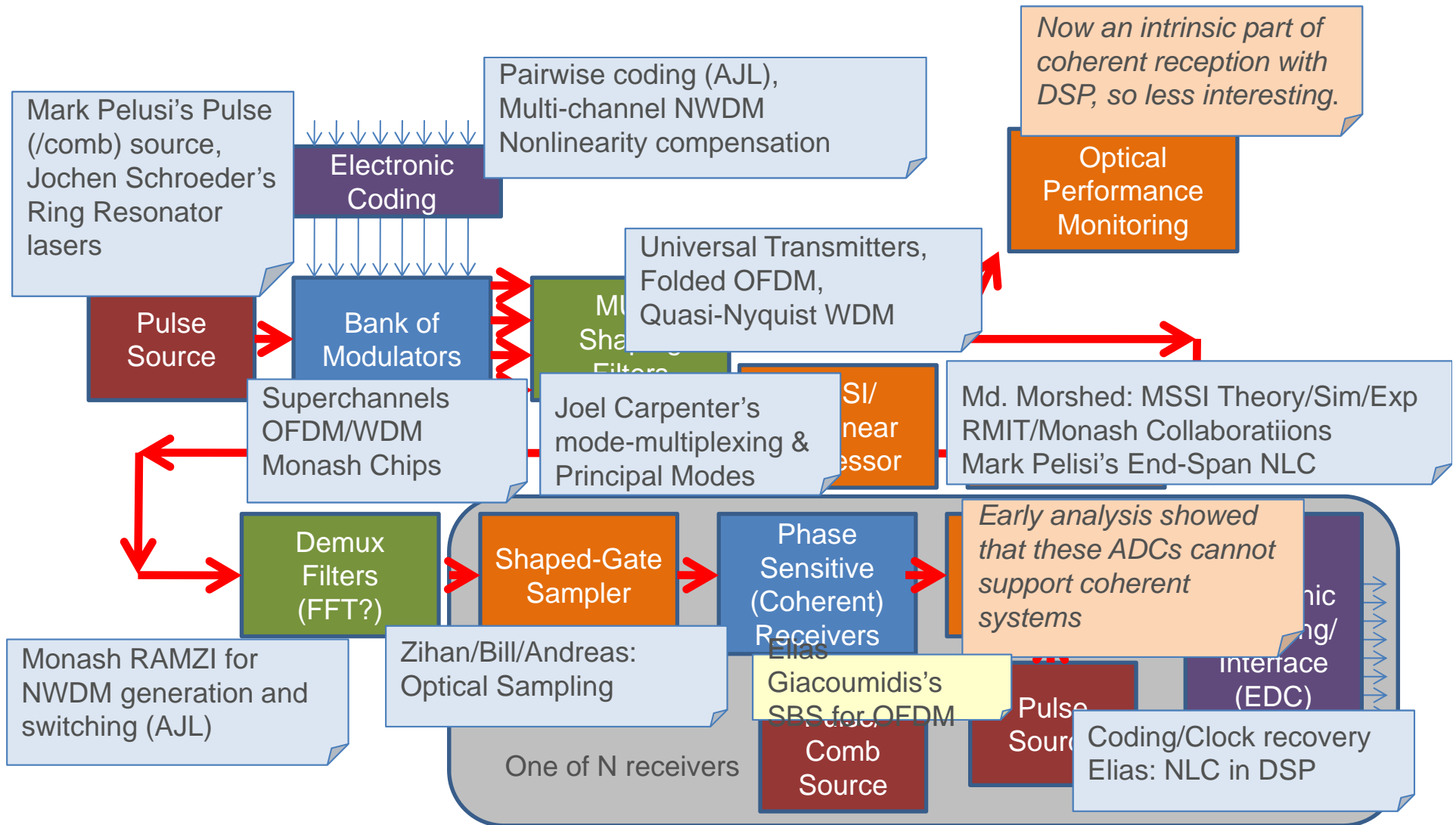
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What's *the* big issue with telecoms?

What was the original science goal of the project and what was the state of the field when the project started? (AJL 2011 slide)

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What are our contributions?

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What is the legacy of the project? How has it influenced the progress and direction of the field and how will it influence the field going forward. How is the broader field building on CUDOS' achievements?

- Many cited papers in systems: well known work internationally.
- Our algorithms now used in commercial systems
- Trained PhD's and PD's in major companies (Telstra, Google, Nokia Bell…)
- RF's in continuing university positions (JS, JC, BC)
- Fantastically equipped labs for systems research in Monash, RMIT, Sydney *and Melbourne*
- Many new applications of Waveshapers demonstrated
- Supply chains emerging: *devices into optical systems*

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How has it influenced the progress and direction of the field and how will it influence the field going forward. How is the broader field building on CUDOS' achievements?

- Optimal Baud Rate – few Gbaud for 20,000 km 60 Tbit/s
- Uptake of MSSI/Phase conjugation by Bell Labs
- Odd-Even Channels – no good for some demonstrations
- All-optical transmitters & AWGR applications
- Funding for SDM mode shaping: Joel's Discovery
- Principal modes in SDM – fundamental concept

Capacity

Flexibility / Interoperability

Energy Efficiency