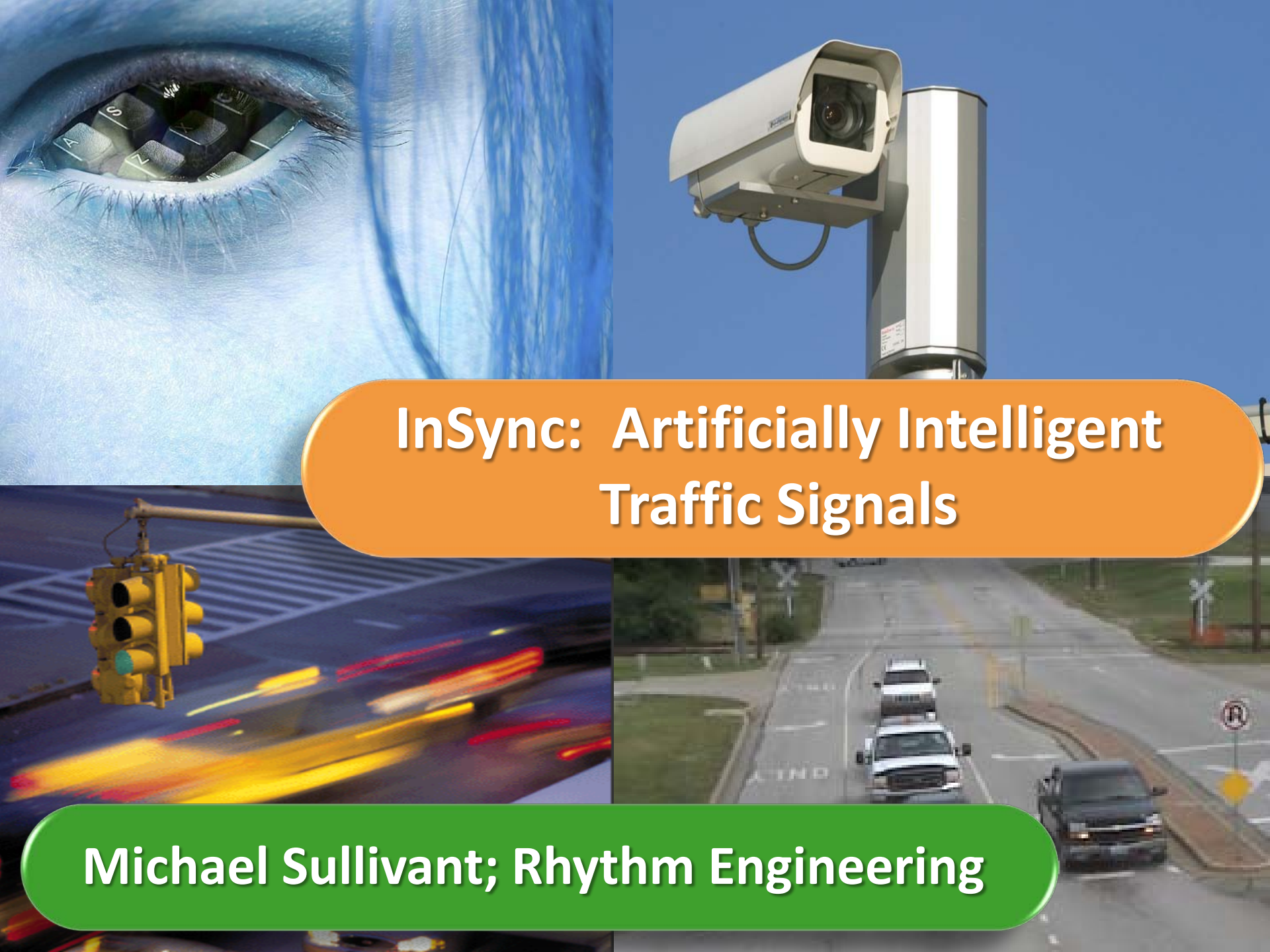
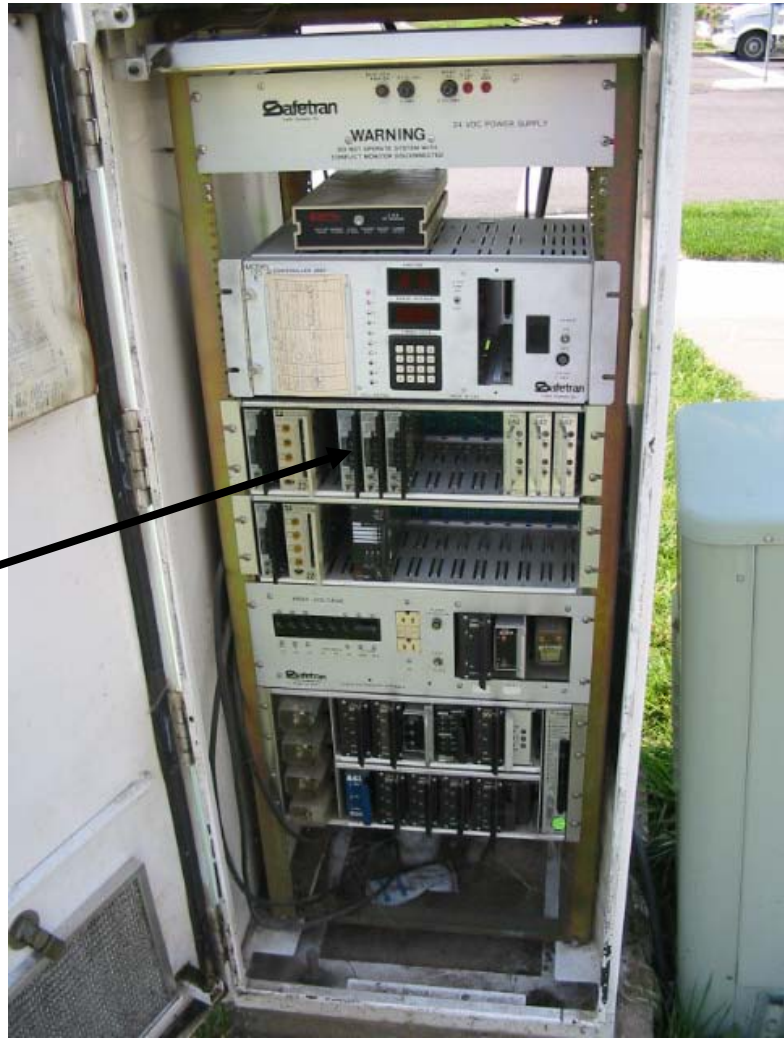


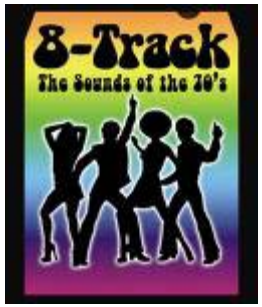
InSync: Artificially Intelligent Traffic Signals

Michael Sullivant; Rhythm Engineering

InSync Adaptive System



Music: From Analog to Digital



Analog vs. Digital

Analog vs. Digital

+

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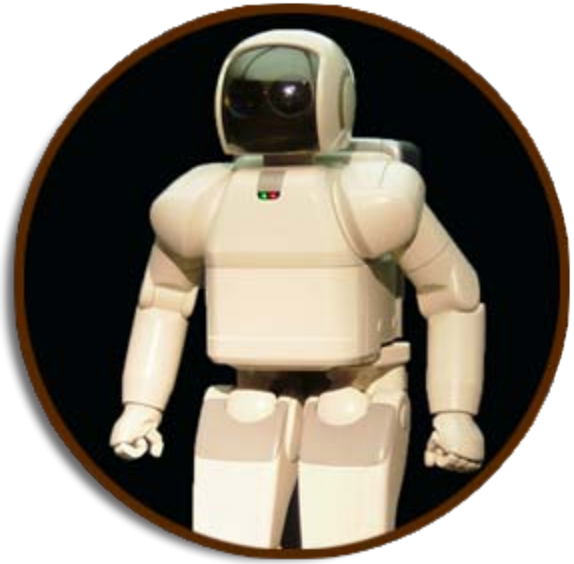


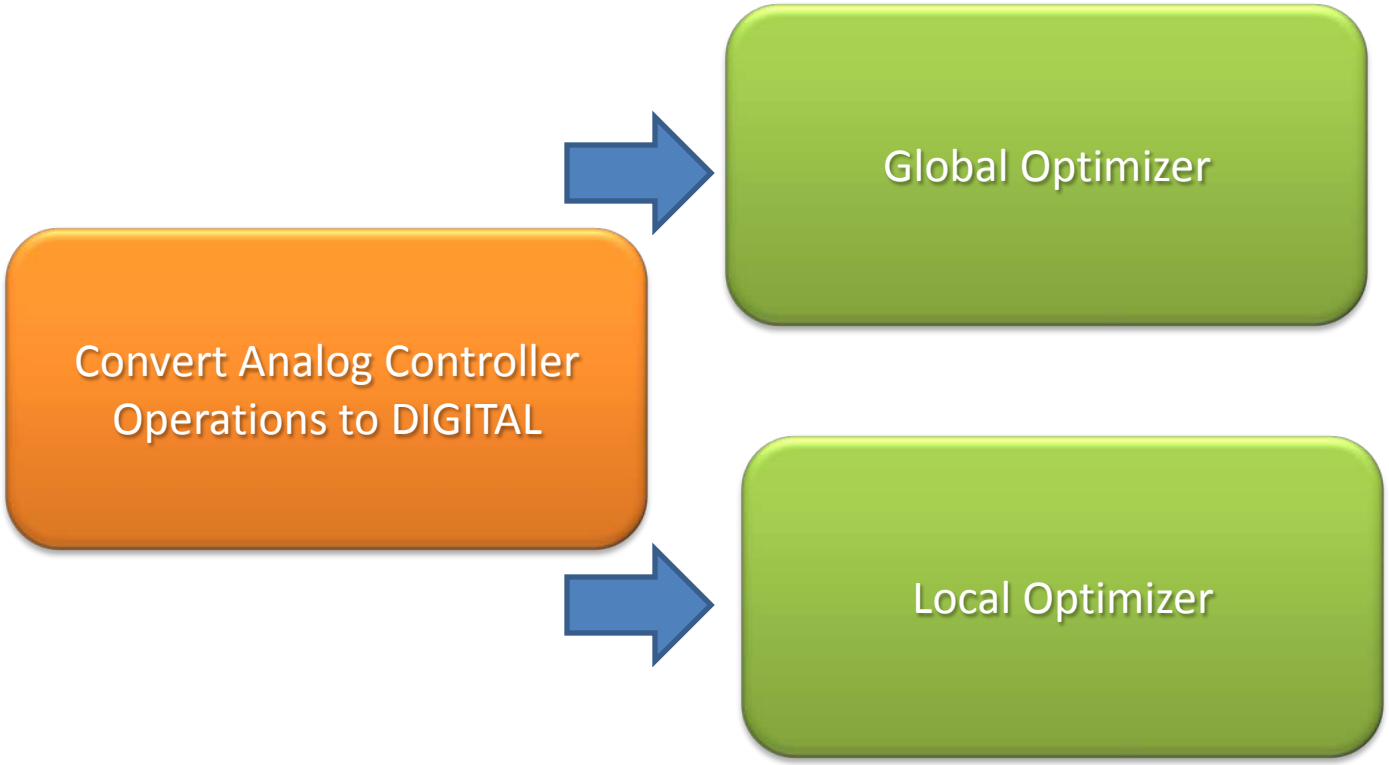
TraVis™

Traffic Vision

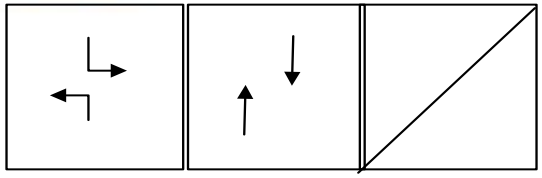
InSync™

The Brain

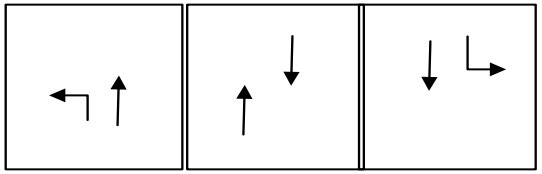
Architecture



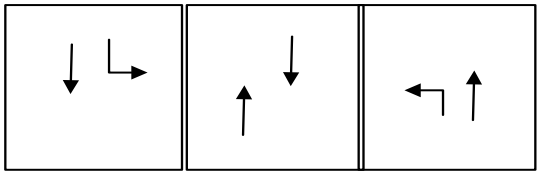
Sequences and States



Leading Lefts



Lead-Lag



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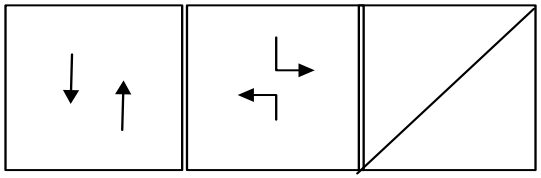
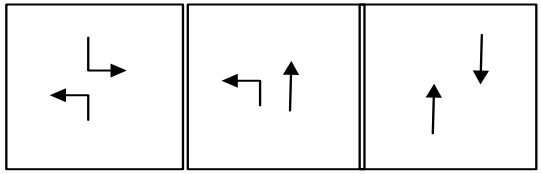
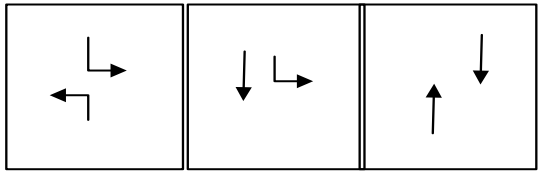


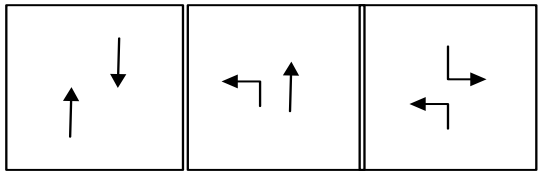
Lagging Lefts



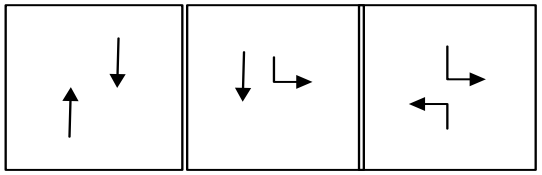
Leading Left with Overlap



Leading Left with Overlap



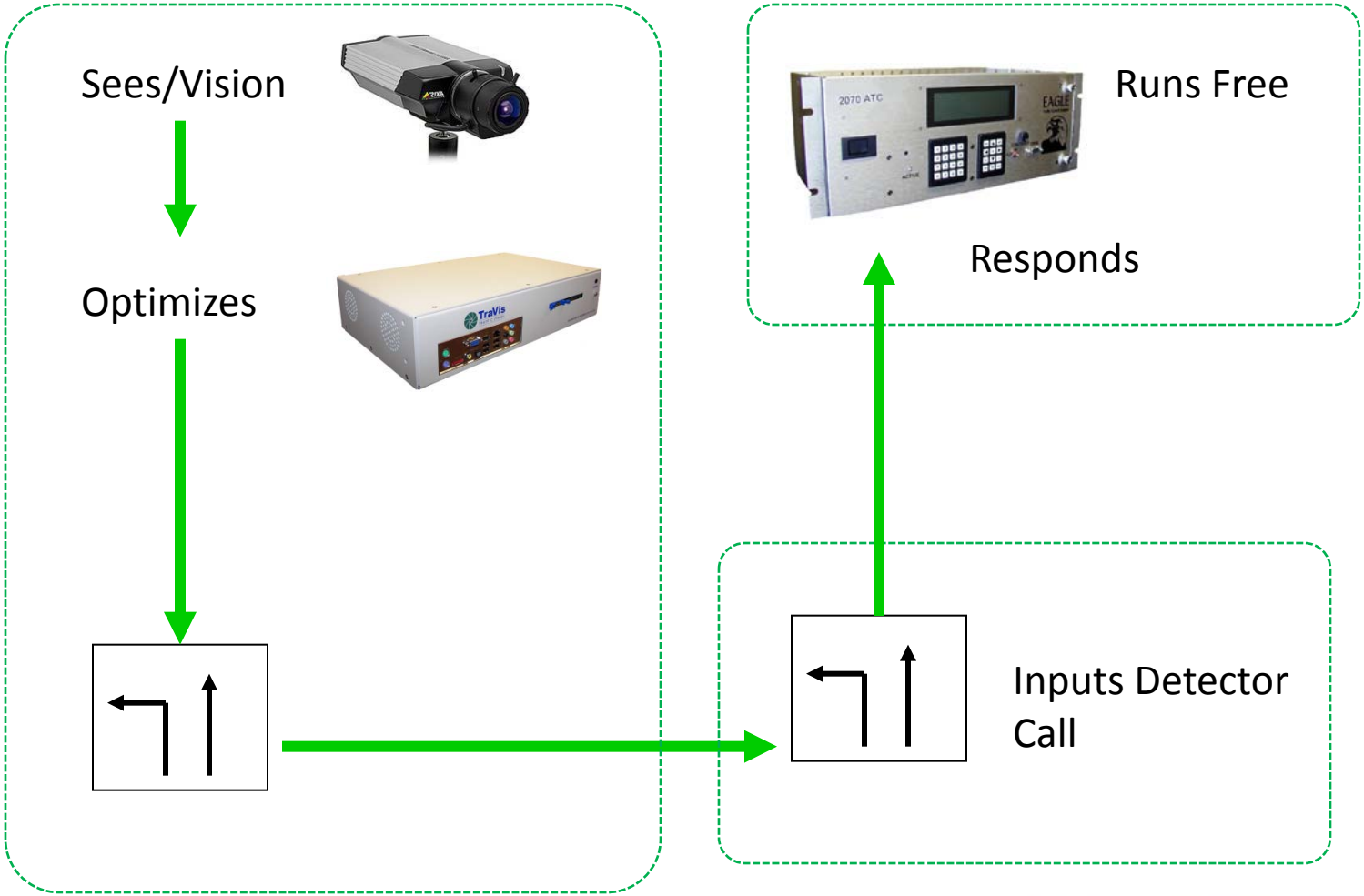
Lagging Left with Overlap



Lagging Left with Overlap

Note: The same phase combination is possible for the East-West direction

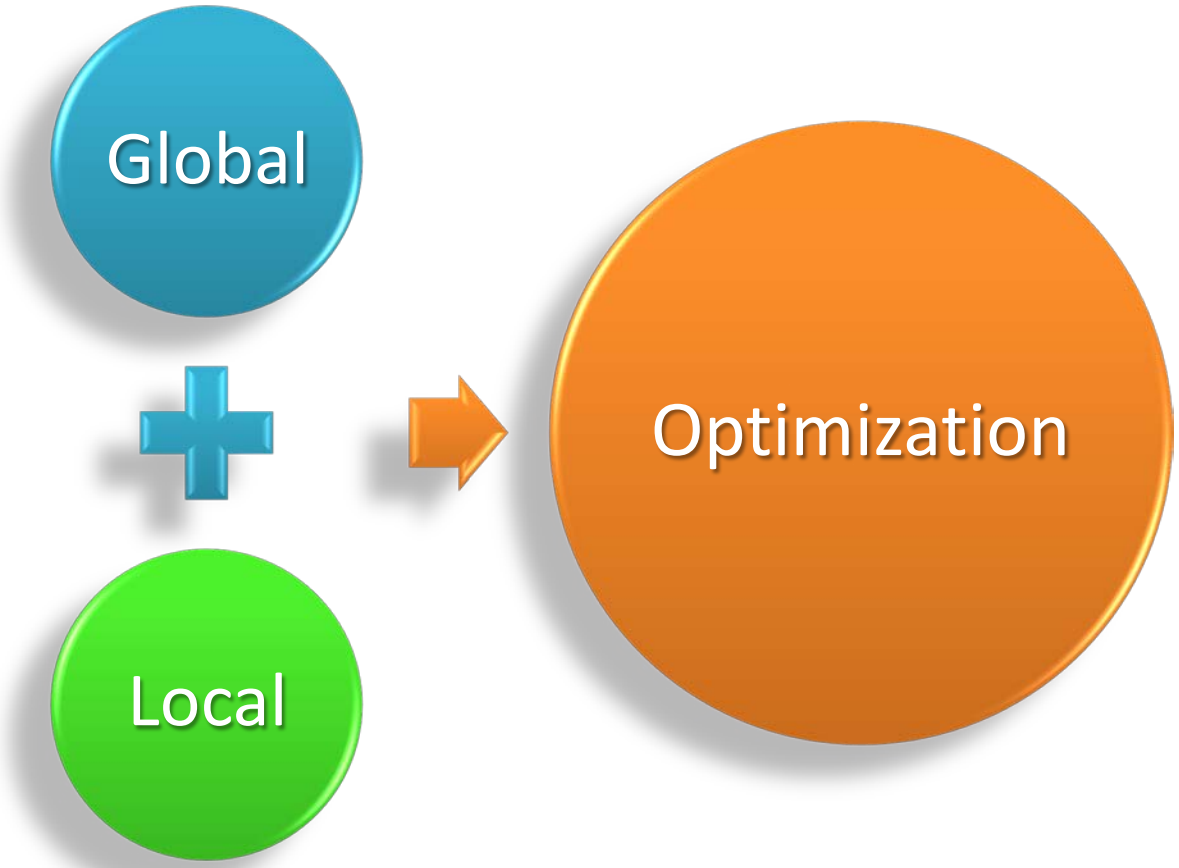
InSync Adaptive System



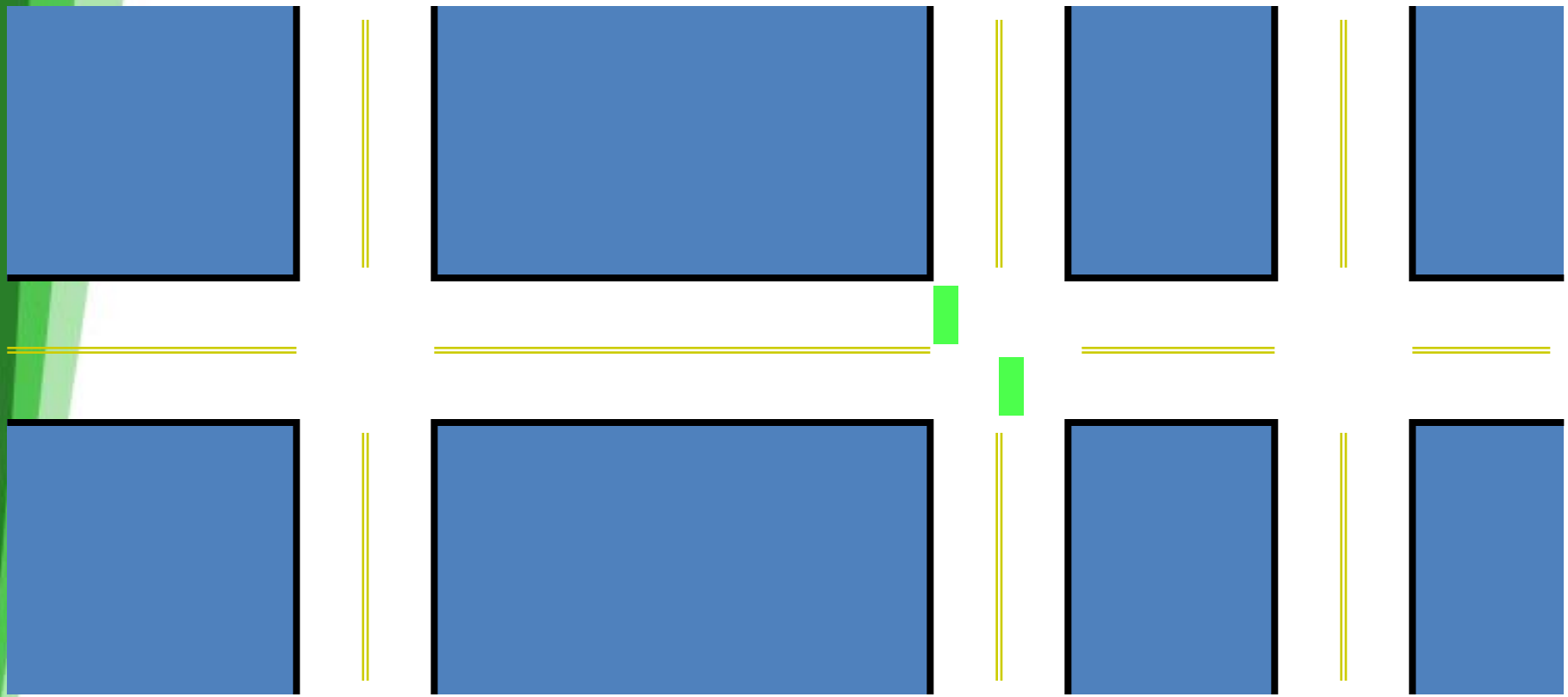
Three Decisions

- What Sequence to Pick?
- When to Initiate States?
- Duration of States?

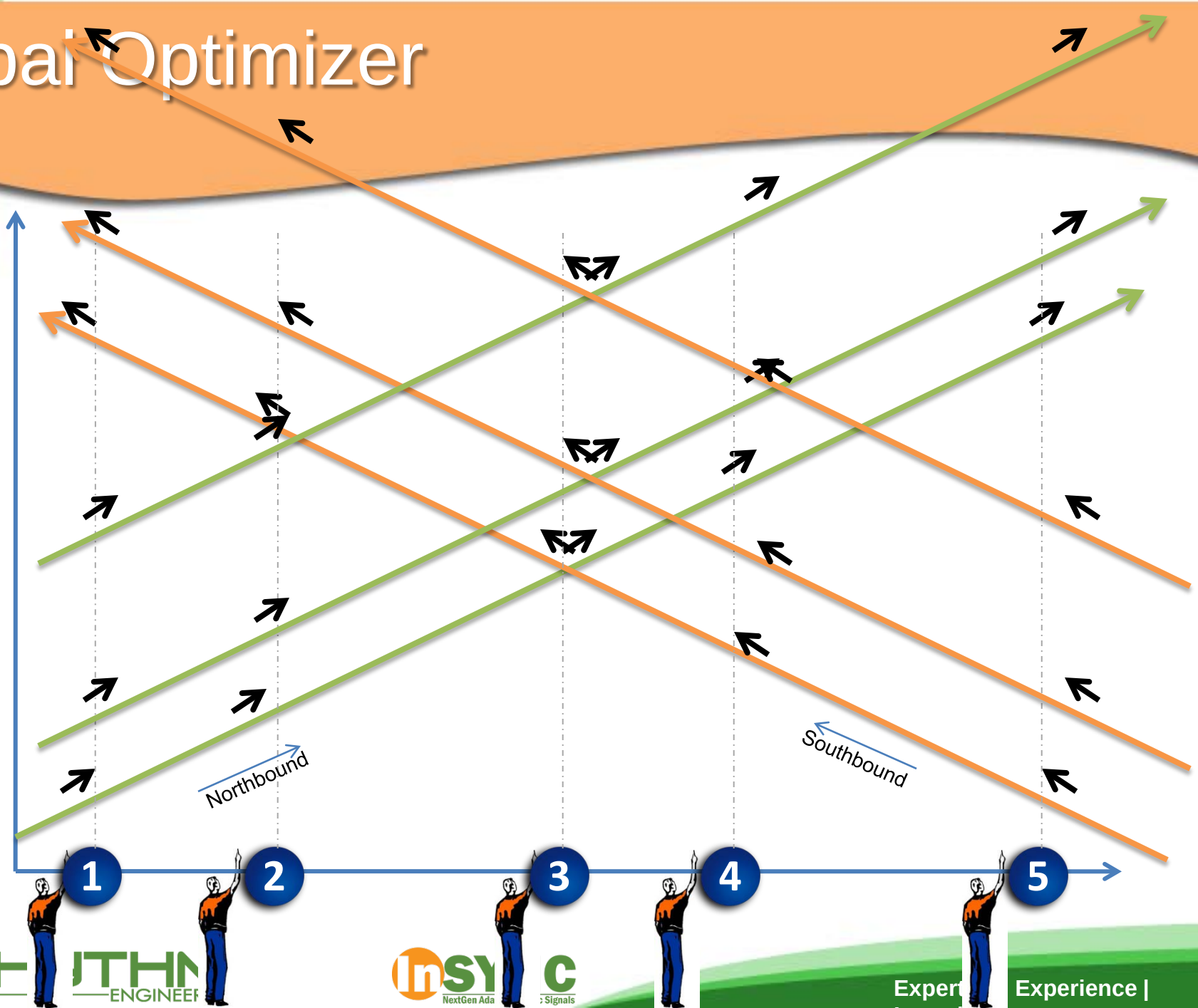
Traffic Flow Optimization



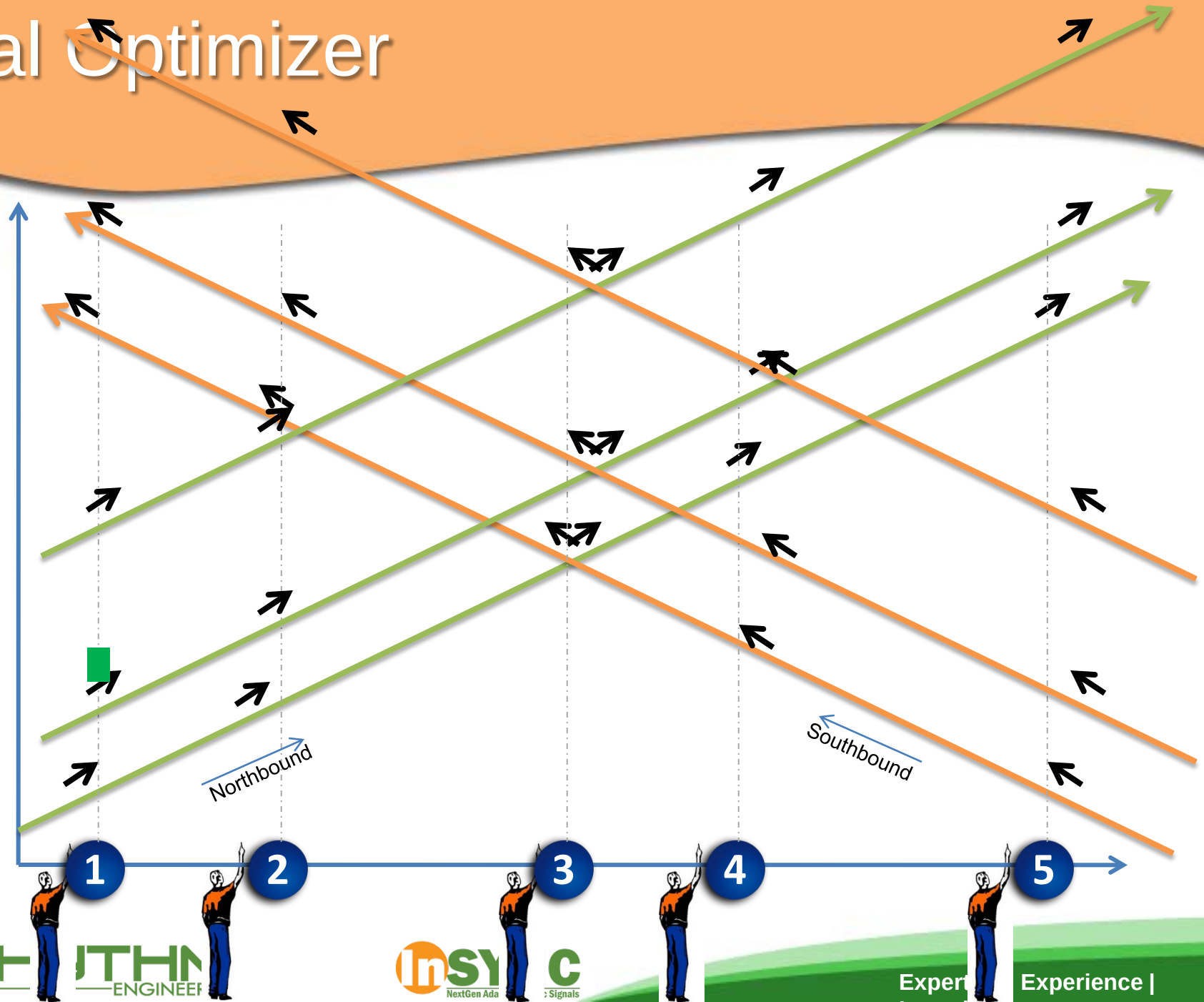
Global Optimizer



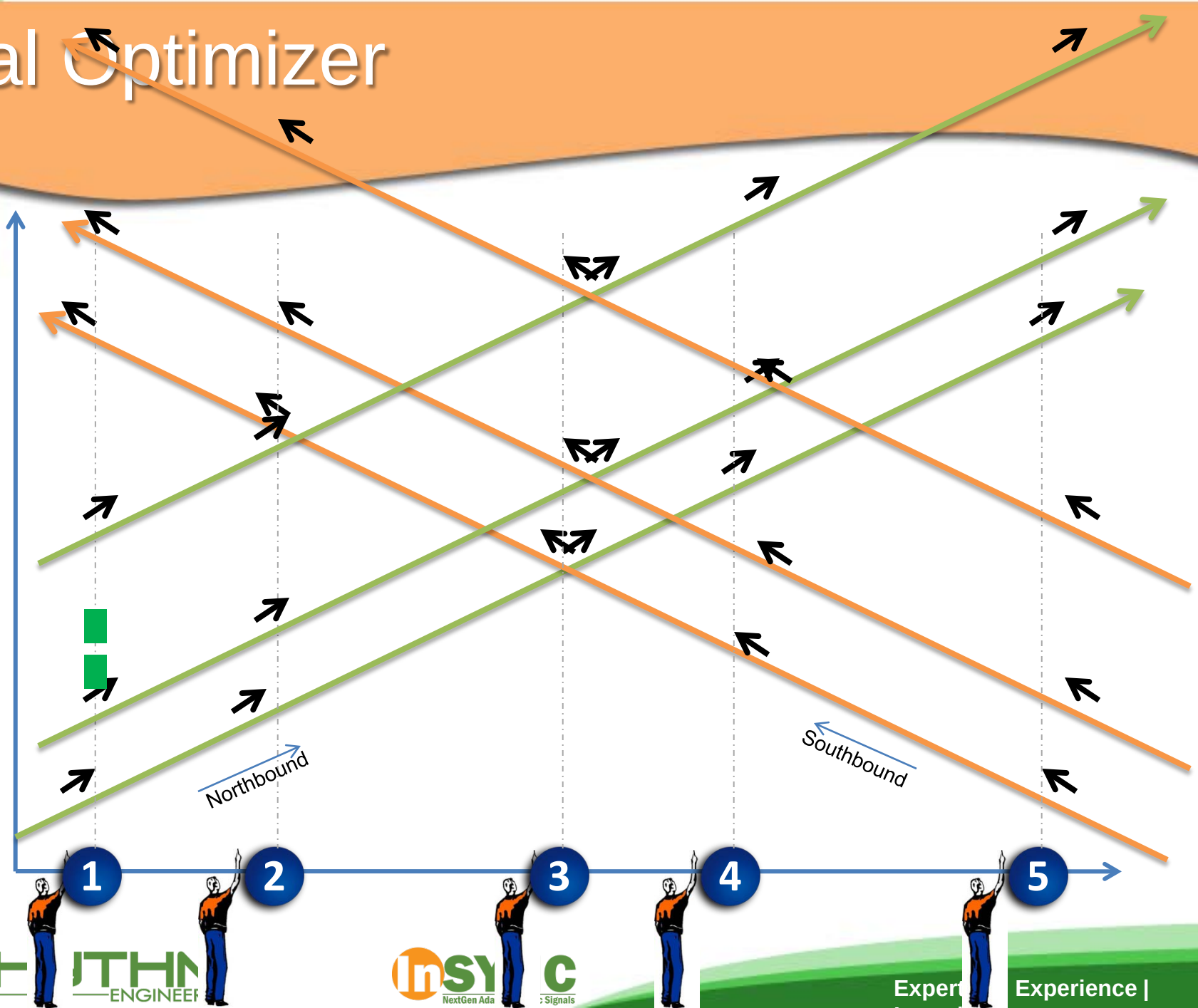
Global Optimizer



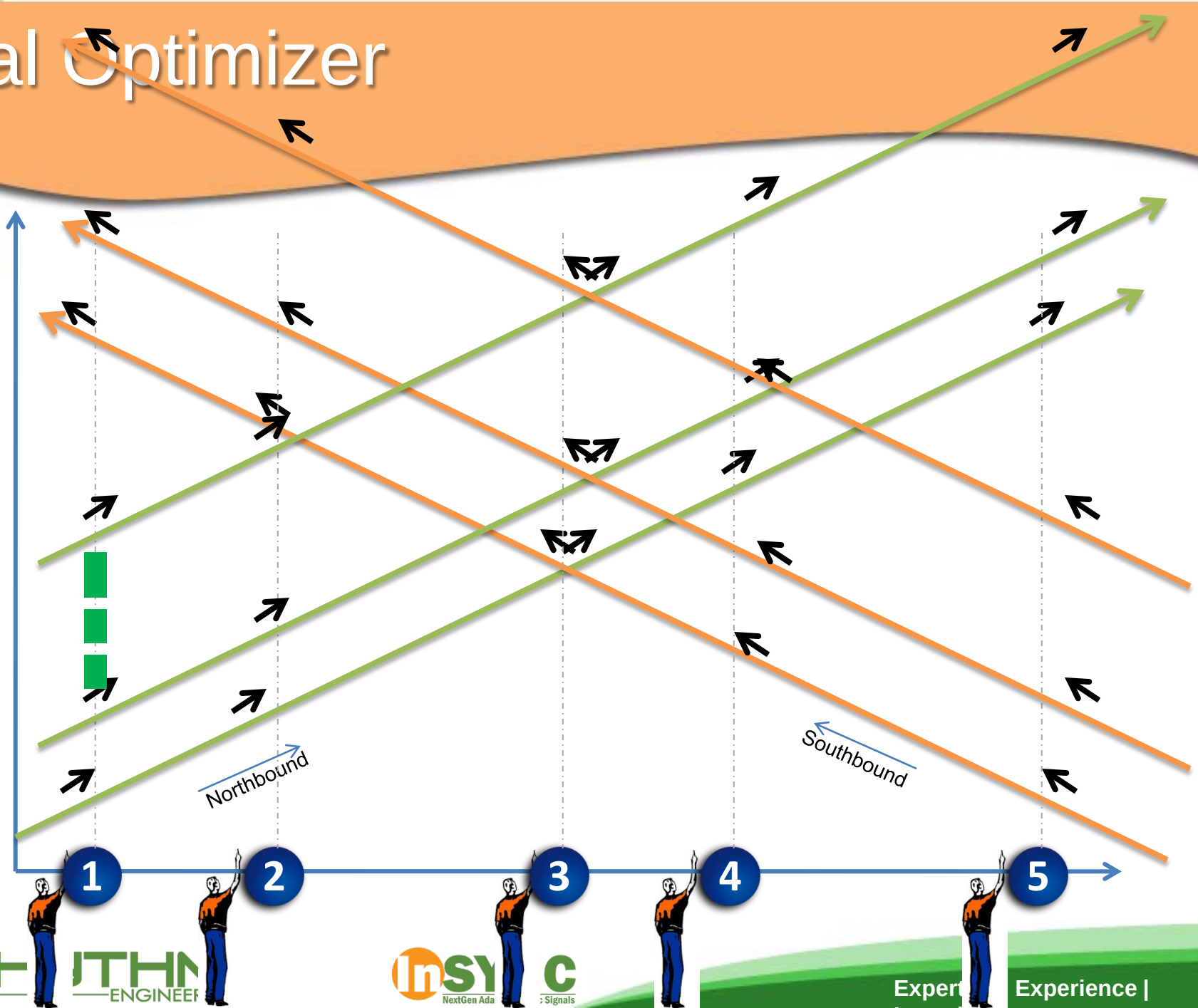
Local Optimizer



Local Optimizer



Local Optimizer



THANK
YOU