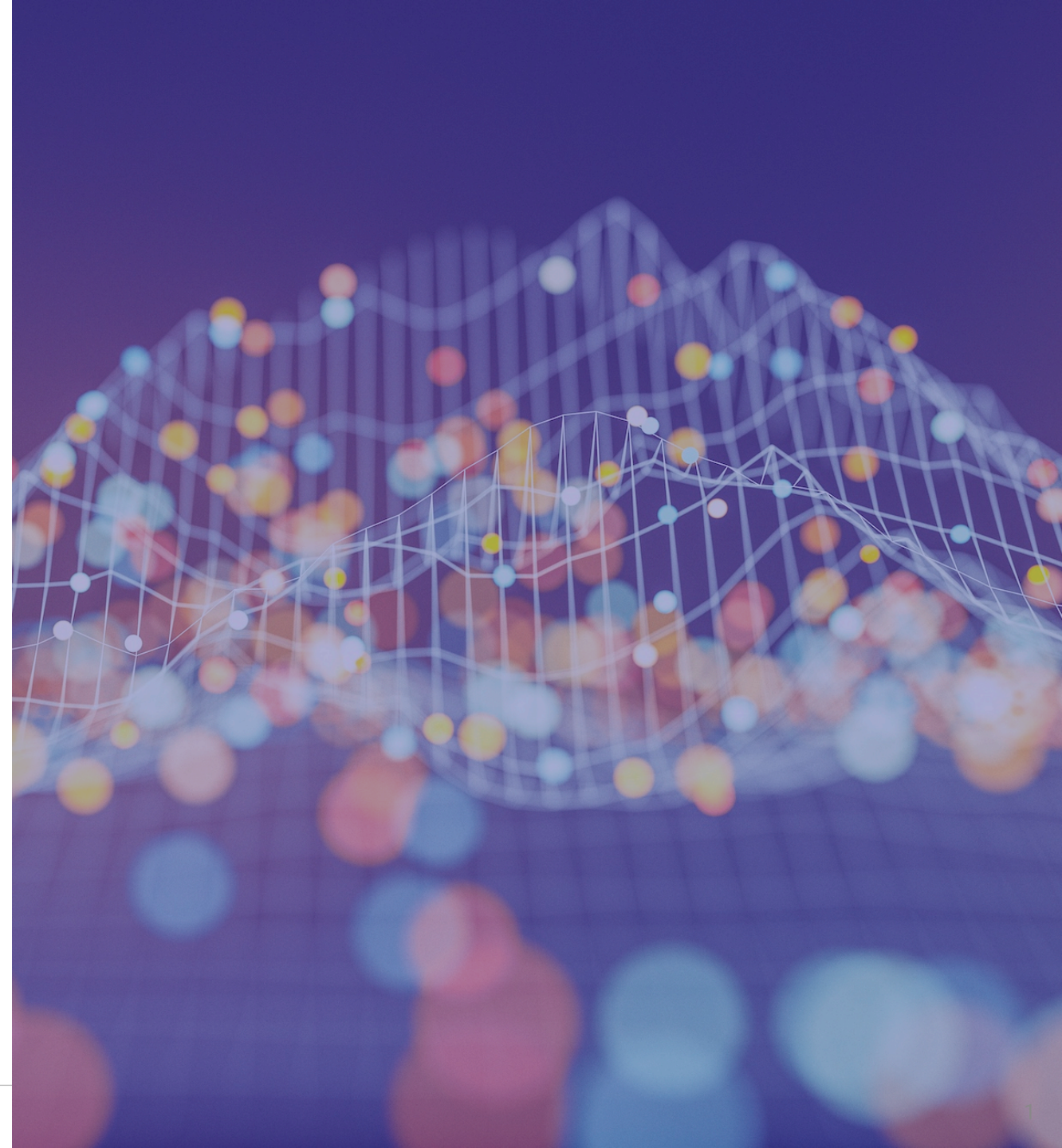


Analog Design Automation

A new approach to generating
Analog IP



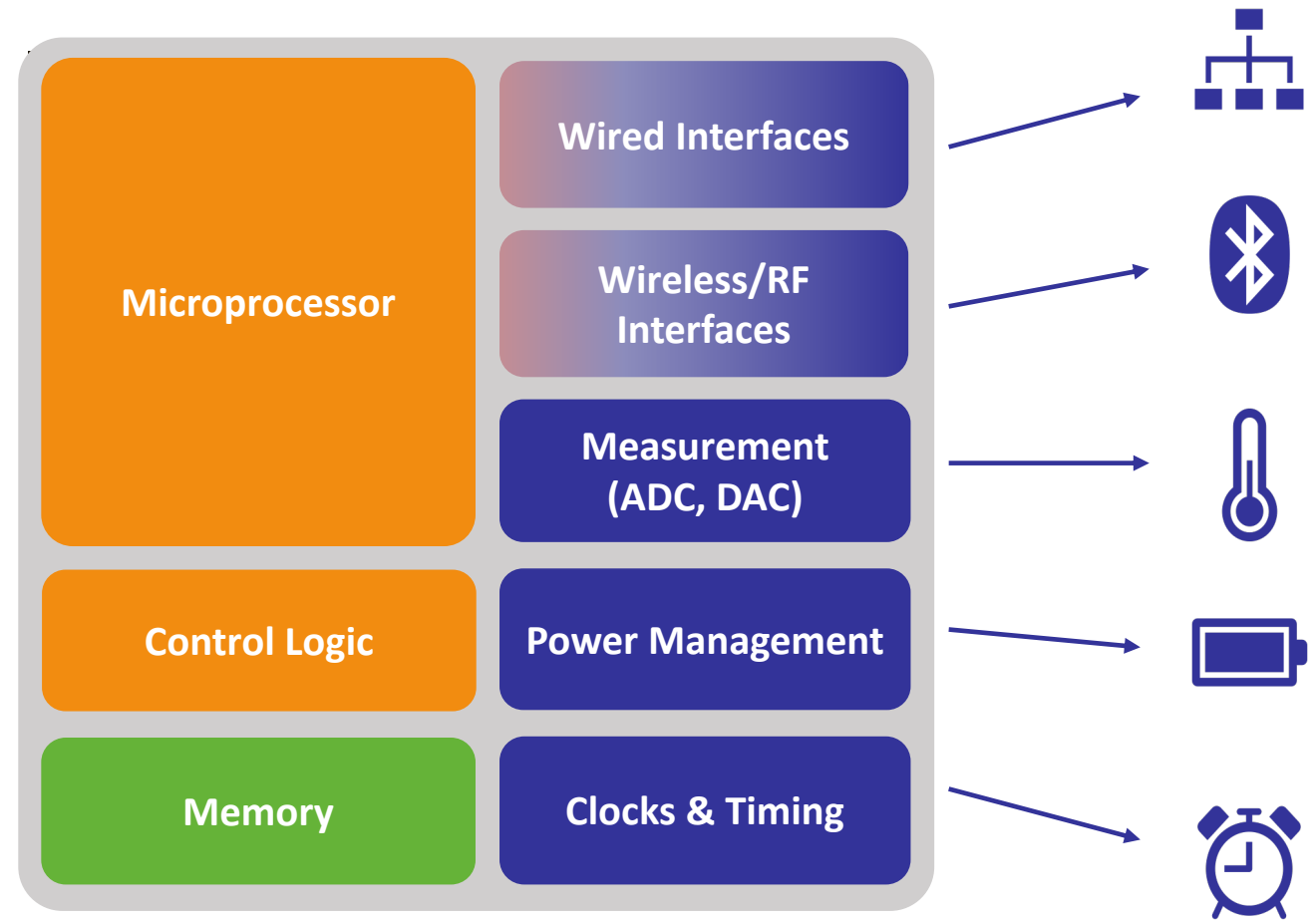
An aerial photograph of a city skyline at sunset. The sky is a mix of orange, yellow, and blue. The city is densely packed with buildings of various heights and colors. A large, bold, white text overlay is centered in the upper half of the image.

**The world of Analog IP is about to
change...**

The Need for Analog IP is Exploding

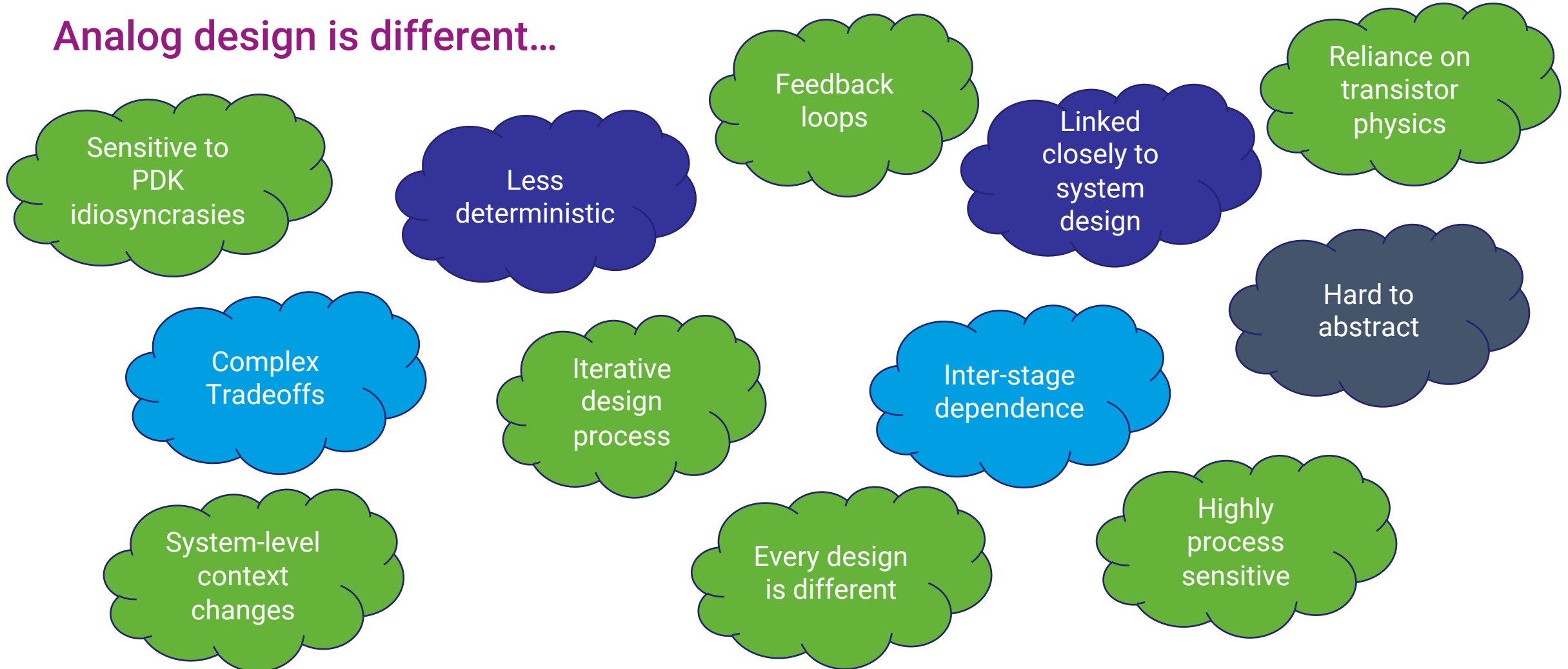
Key part of any Silicon chip – the interface to the world

- The real world is analog, which is increasingly demanded as the World becomes connected
- Analog IP handles
 - Power management
 - Clock generation
 - Measurements
 - Communication
- Much analog IP needs redesigning for each new SoC and customer
- The vast majority of Analog IP is currently hand implemented
 - Slow, expensive, variable in quality
 - Slow to make available for new PDKs and processes!
 - Slow to move between foundries



But... why haven't analog methodologies changed?

Analog design is different...



But... why haven't analog methodologies changed?

- Demand for analog components is increasing
 - More complex SoCs, with higher levels of integration including RF
 - Advanced power modes, with integrated PMUs
 - Real-world interfaces (audio, LED, sensing)
- Number of Silicon process variants is increasing
 - Analog IP generally only available on a subset of processes
 - Each new process requires analog to be ported – costly, and often generating suboptimal solutions
- Cost of porting results in only 'one size fits all' IP being available, and only on most popular processes
 - IP includes many excess features, which cost power/area
 - Prevents customers picking the 'best' process technology for their application
- As a general rule, the quality of customized deliverables is poor
 - 95% of issues with mixed-signal designs come from the analog!

Agile Analog solves these issues – delivering high quality, optimized analog components on any process. Fast.

Why hasn't this been solved before?



Scalable from simple to complex designs, and across specifications



Flexible – deliver to the exact specifications, not a modular subset



Build on existing best practices to deliver higher quality results



Re-creatable across PDKs without additional work



Support complex analog requirements – e.g. multiple feedback loops



Leverage existing EDA solutions – take advantage of the best tools



Allow many simultaneous customer projects on many different nodes



Not require specialized foundry support

A simple example – a SAR ADC...

High temperature, high reliability



Area critical, ultra-low power



High precision, absolute accuracy



Low power, high sensitivity



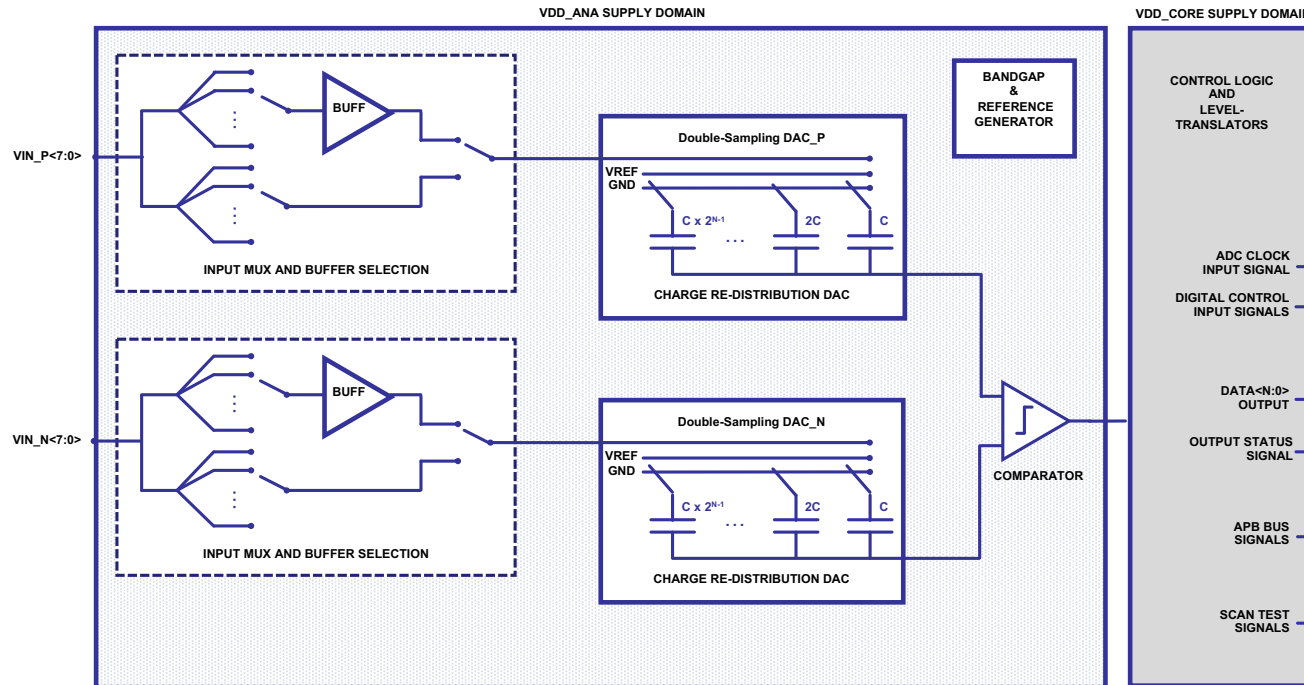
High bandwidth, high accuracy



Low area, multi-channel

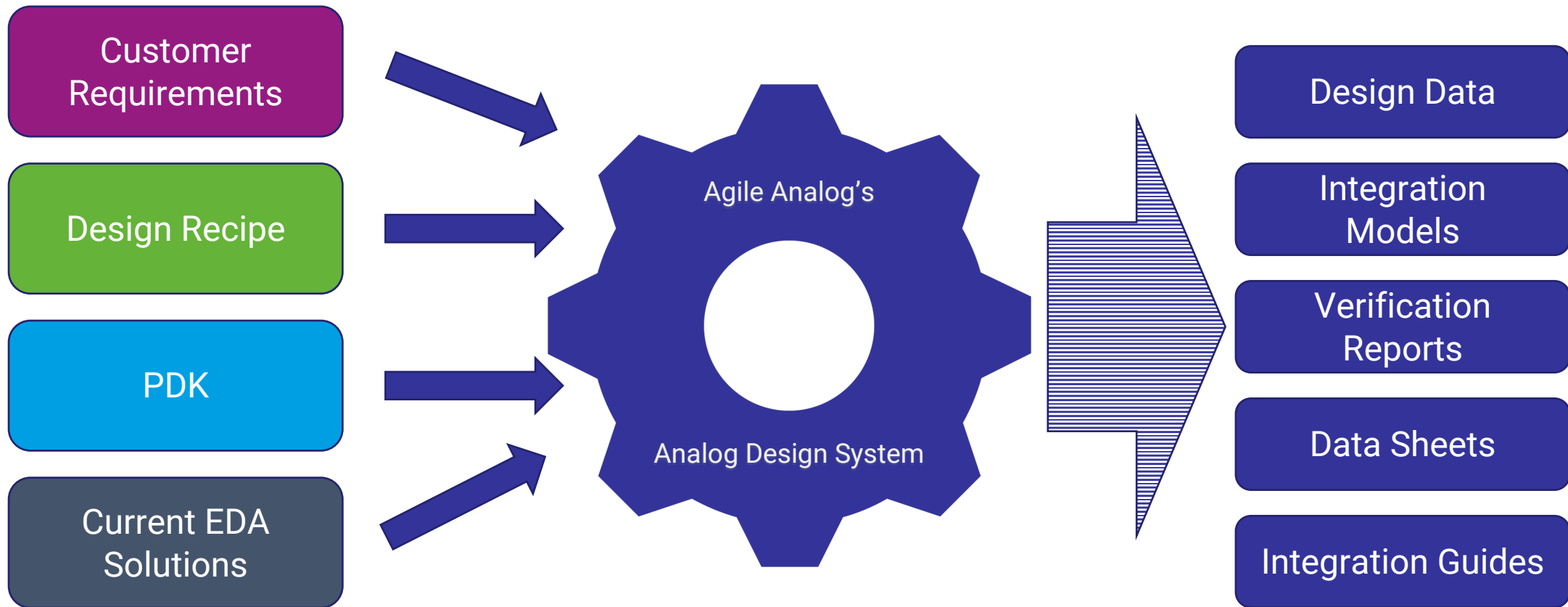


A simple example – a SAR ADC...



- Input parameters
 - Sample rate
 - Bandwidth
 - Channel configuration
 - Linearity & SNDR
 - ENOB
- Control parameters
 - Temperature range
 - Process technology
 - Process options
 - Supply ranges
 - Margin
 - Aspect ratio

How do we do it?

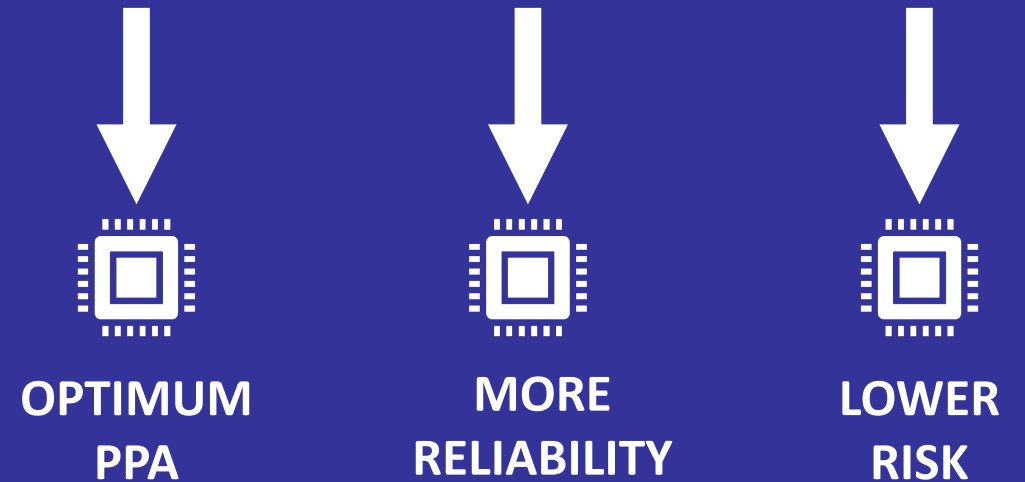


What this means for customers?

- IP (re-)designed from scratch for each customer
 - Exact customer specifications
 - Optimum Power, Performance, Area
- Design methodology is programmatic, systematic and repeatable
 - More verifiable IP
 - More robust IP
 - More reliable IP
- Comprehensive documentation generated in parallel
 - Ease-of-integration, concept-to-production
- Lower risk
 - Proven architectures, verified by Analog Designers
 - High-quality deliverables



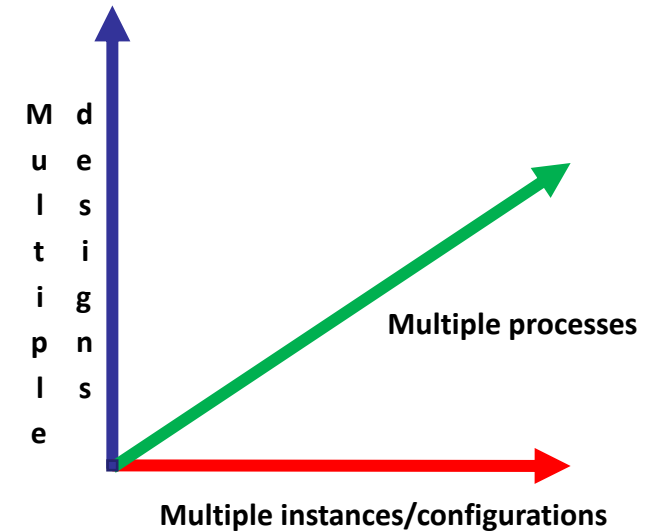
DESIGN AUTOMATION



Agile Analog: a revolutionary, next generation Analog IP company

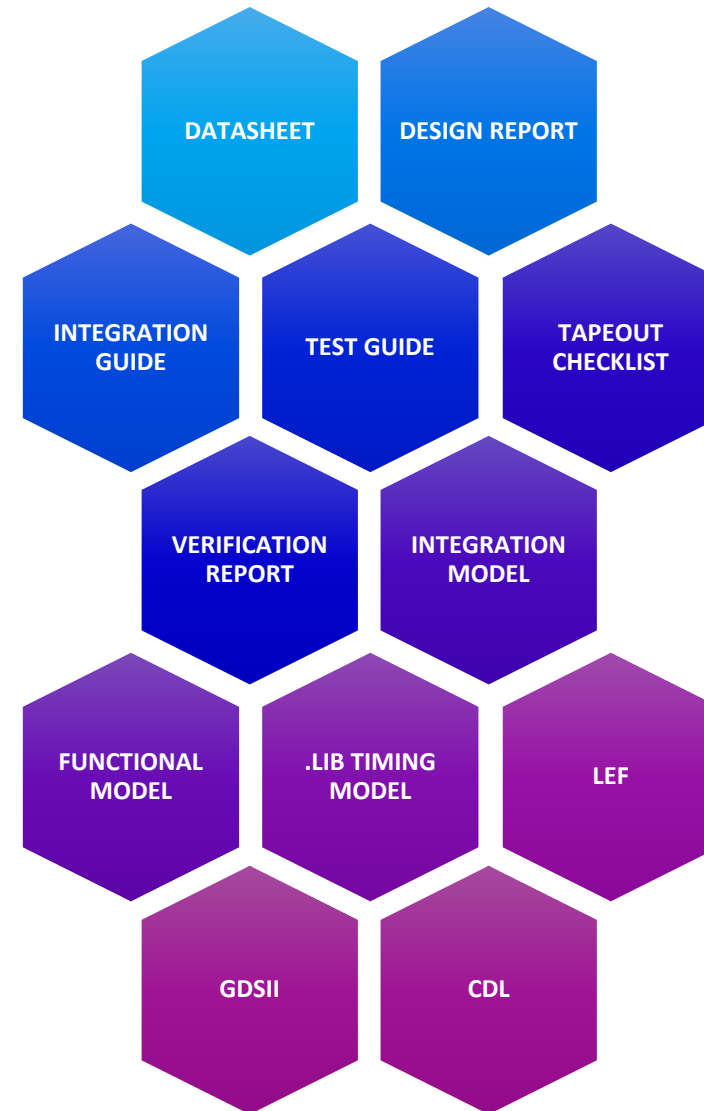
Enables you and your teams with:

- The ability to get analog IP
 - Of the function and configuration you want, not the “closest version on the shelf”
 - On the desired technology node with the latest PDK
 - Quickly, including changes of configuration, PDK and process!
- Multiple axes of freedom for you to choose from, in your use of the IP:
 - Use the IP as a single instance, or multiple instances in your design
 - Use the IP in multiple designs, in multiple configurations
 - Use the IP on multiple process nodes/“flavors” and foundries
- Full support from specification, through design and integration, and on into production



Best-In-Class Deliverables

- Our IP is designed to be easy to use
- Comprehensive deliverables & documentation
 - Our team knows how to make complex SoCs
- High Quality and Consistency
 - Guaranteed through automatic generation
- Our deliverables package reduces integration time & minimises costs

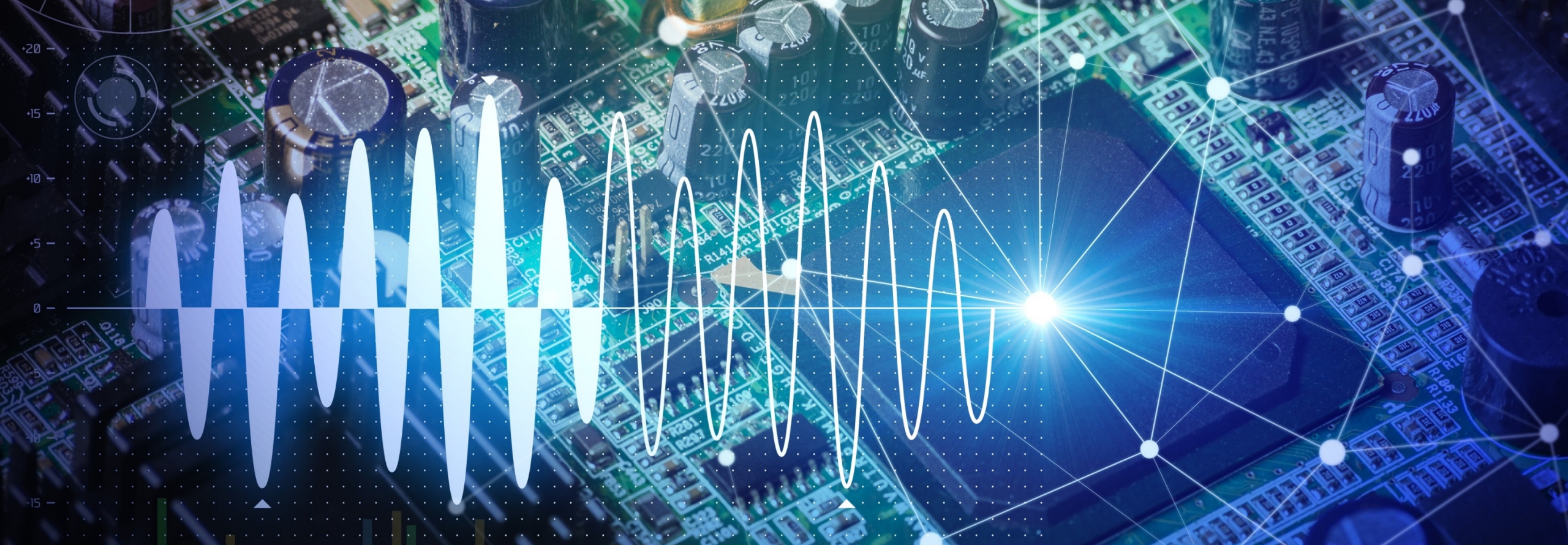


Agile Analog

Company Overview

- Founded in 2017
- Headquartered in Cambridge (UK) with second office in London
- Distinguished Board members
 - Pete Hutton, former President of Product Groups, Arm
 - Sir Hossein Yassaie, former CEO Imagination
- Experienced team with SoC & ASIC background from T1 semis
- Backed by London-based VC investors





Agile Analog is changing the face of Analog IP

A repeatable, scalable, high-quality approach to designing analog IP

... that fits in the current ecosystem

... that is configurable to the customer needs (while improving quality)

... when the customer needs it

... on the process our customer needs

Come visit our booth...

Thank You