BSP DEVELOPMENT

SIMPLIFIED

&

ACCELERATED

Automated Device Driver Generation

Slash

Time To Market By

3X

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Automated Device Driver Generation

Increase Productivity

By

5X

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Automated Device Driver Generation

Automate

Device Driver Code Generation By

95%

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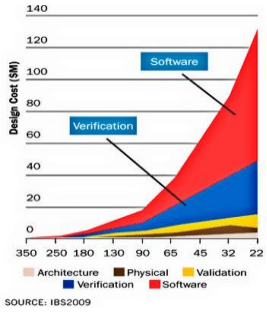
Trends In System Design Requires Rapid BSP Development

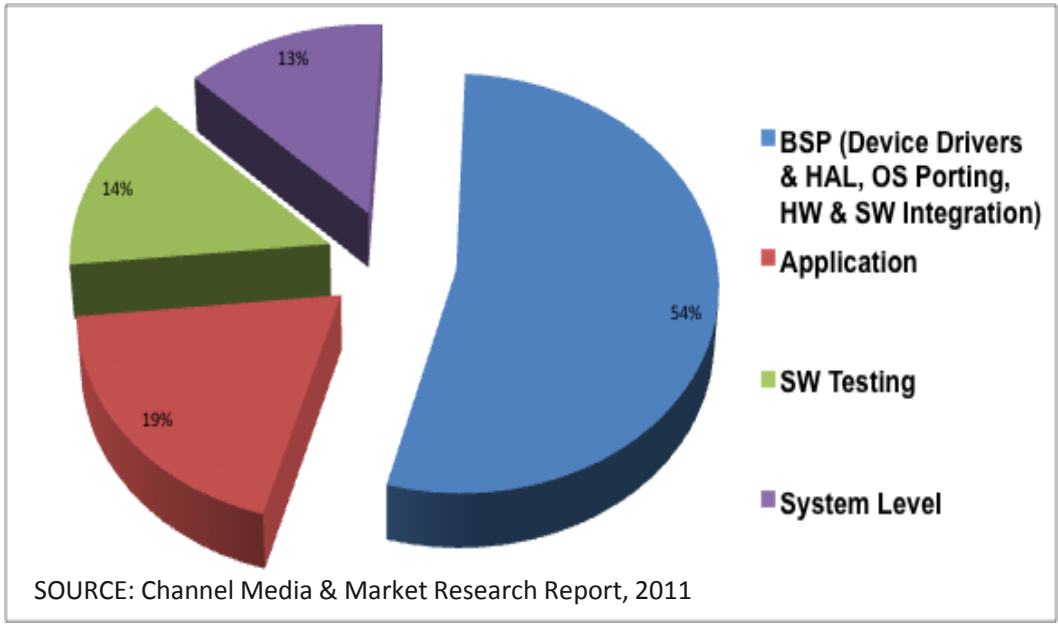
Shorter Product Lifecycles

Applications are the Key Differentiators



Rising Share of Software Costs

Rapid BSP Development Is **The Challenge**



SOURCE: Channel Media & Market Research Report, 2011

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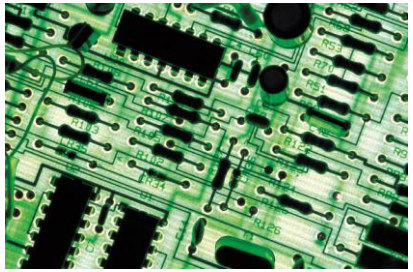
Challenges In BSP Development

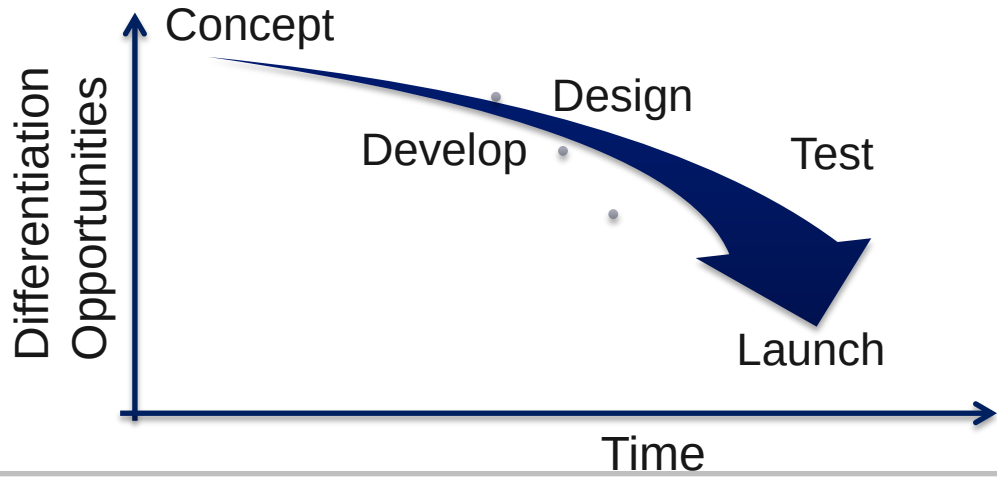
- **Integration Challenges**



```
#include<ch9.h>
static int xxx_probe()
{
   base_addr = ioremap;
}
```

- **Significant Investment**

- **Delayed Product Rollout**



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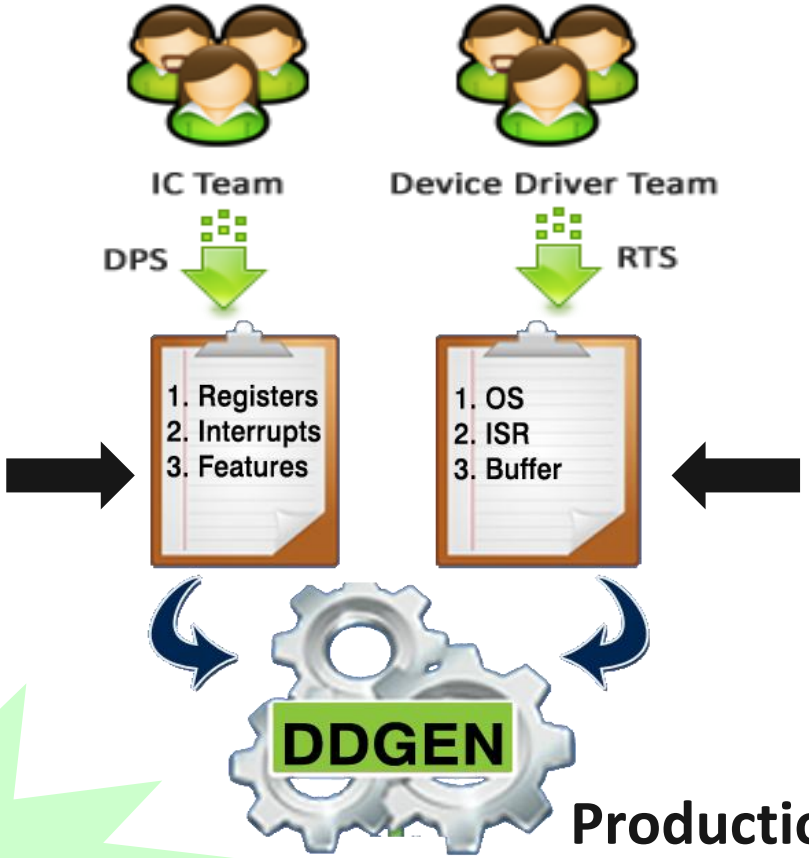
Vayavya's Solution – Automating Device Driver Generation

DPS provides programmer's view of the device



RTS enables software architecture capture

Supports multiple operating systems

Production Ready Driver Code

Correct-by-Construction, Optimized for Performance - Readable, Maintainable, Customizable

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Vayavya BSP Development Advantage

30%

REDUCTION IN COSTS

40%

REDUCTION IN TIME TO MARKET

95%

AUTOMATED DRIVER CODE

4X-5X

LESSER EFFORT FOR **NEW BOARD O/S**

10X

FASTER SUPPORT FOR **DERIVATIVE BOARDS AND SOC**

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Vavavya DDGEN Delivers

Readability	• Highly readable code – easy modification • Doxygen compliant – quick API html
QOR	• Performance equivalent to hand-written driver code • Code size comparable as well
Ease of Use	• DPS, RTS are text files • Legacy Register spec automatically imported • Detailed application notes
Debugability	• Code instrumented with debug statements • Debug Methodology guide • Module for register/descriptor probing

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Representative Clients

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Device Classes Supported

Device Class	Devices
Core devices	UART, Timers, Clocks, DMA, etc.
Bus	I2C, SPI, USB2.0, USB 3.0
Interfaces	Ethernet, SDIO, SD, MMC
Peripherals	Video, Audio

- For unsupported device classes, **DDGEN can still generate**
  - Register access code, basic ISR and driver registration code
- Flexible architecture enables **new device class/OS support in a matter of weeks**

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About Vayavya Labs

Deloitte. Technology Fast50 India 2011

TATA NEN hottest startups DARE TO TRY

Silicon 60

- Founded in July 2006, privately held, profitable
- Management team with strong background in DTV and STB solutions
- Patented device driver synthesis technology
- Presence in USA, India & Japan

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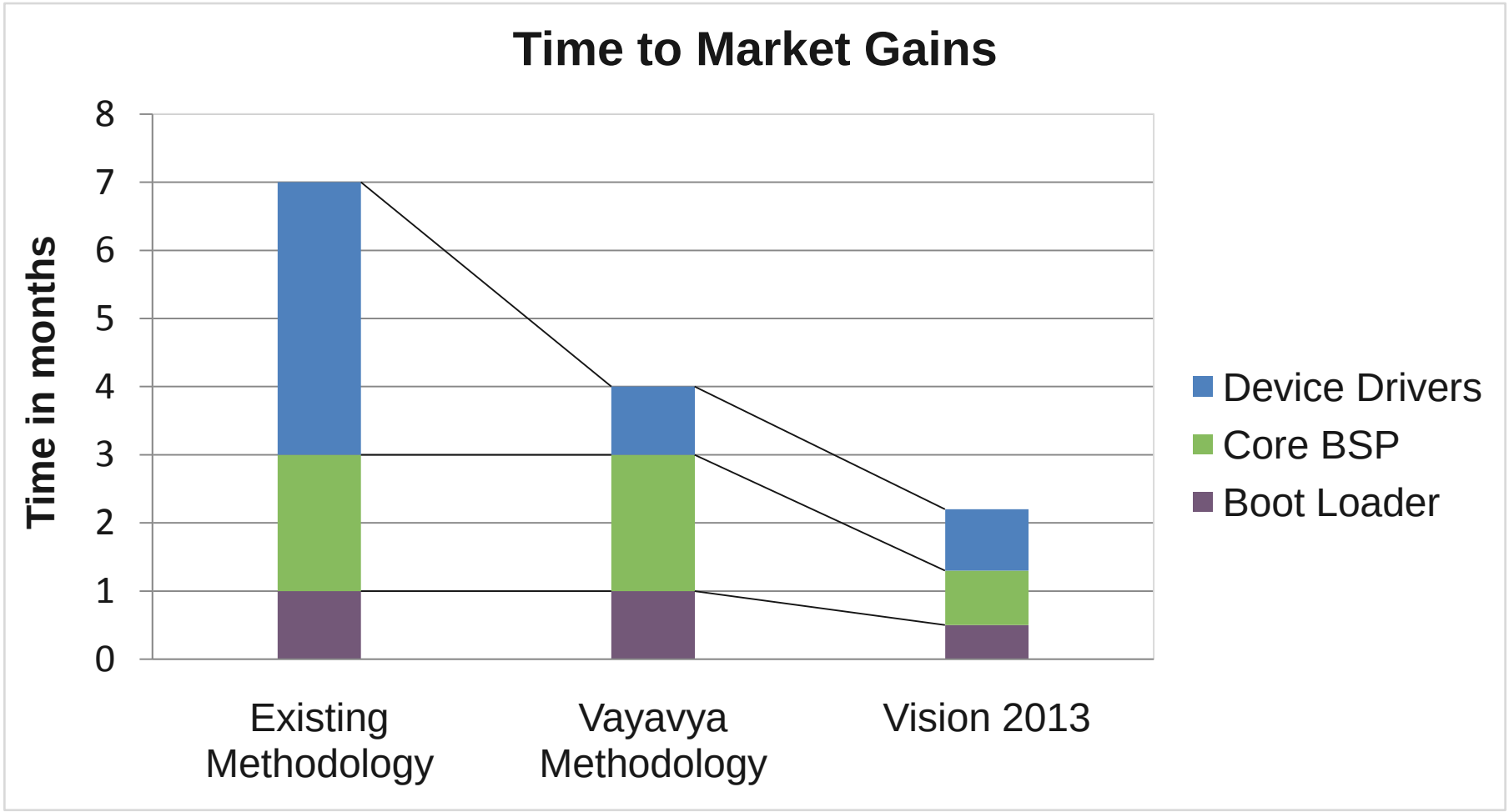
Our Quest To Reduce Design Bottlenecks Continues…



To help you optimize your system design investments

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