



Test and Verification Solutions

Overview for the NMI

Mike Bartley of TVS is NMI Technical Advisor on Verification

- **TVS offers expertise in hardware verification, software testing and offshoring.**
- **TVS acts as a UK portal to established, trusted offshore suppliers**
- **TVS takes the risk out of offshoring**
- **TVS will improve your product quality whilst reducing your costs**

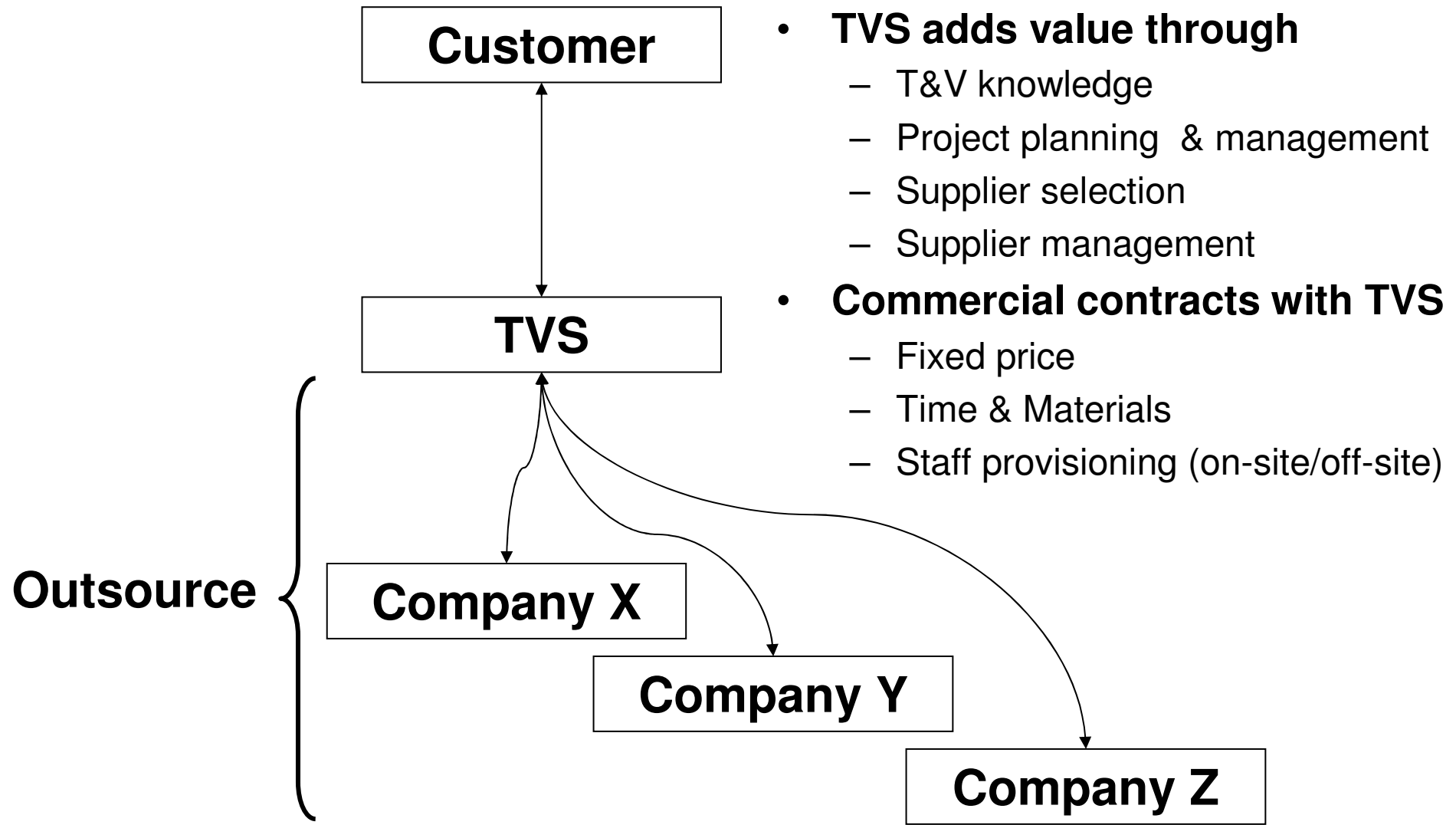
- **The up-front engineering costs**
 - Estimated at 70% of hardware development cost
 - Estimates vary from 30% to 70% for software testing
- **Late to market risk**
 - Poorly planned or executed QA can delay the product schedule
- **The product quality penalties**
 - Chips or software that do not work first time
 - Costly product recalls
 - Cost to brand

- **Finding people**
- **Large investment**
 - To set up a team, methodology, flows, execution, maintenance
 - To stay state-of-the-art in test and verification
- **Resource planning**
 - Load balancing
 - Tied up resource
- **Lost-opportunity**
 - You want your r engineers to work on IP development and customer engagement

- **TVS provides a complete methodology**
 - Using extensive expertise and 20 years experience
 - Of building t&v teams and flows for
 - Semiconductor: ST, Infineon, Elixent (now Panasonic),
 - Systems: ClearSpeed
 - Software: Praxis, IPL
- **Verification technology is in continual improvement**
 - TVS keeps up to date with the state-of-the-art
 - Working within broad range of technology sectors
 - Working closely with CAD vendors

- **TVS has outsourcing knowledge and experience**
 - Executed a number of successful outsource projects
 - Knowledge and experience encapsulated in a methodology
- **TVS works with a number of trusted suppliers**
 - Find resources with appropriate skills and domain expertise
 - Identify the best value for money based on risk assessment

- **Review and recommendation report**
 - Review your current products QA procedures
- **Methodology development and execution**
 - Build and develop t&v teams, methodologies and tools to support them
- **Verification audit**
 - Perform a verification audit on your potential IP supplier or your own IP
- **Outsourcing**
 - Provision of outsource staff
 - TVS has a pool of trained, experienced staff
 - TVS has relationships with a number of outsource partners for either
 - Outsourced projects (fixed price, time and materials)
 - On-site staff
 - Outsource audit and management services
 - Tailored to suit need (set-up, management, audits, reviews)
- **Test and verification environment maintenance**
 - SW test or HW verification environment maintenance, migration, etc



- **TVS is a one-stop shop for all of your software test and hardware verification needs**
- **TVS is a UK portal to India allowing you to leverage existing, trusted TVS relationships**
- **TVS reduces your costs and risks**
 - The engineering costs
 - Reduced through the use of outsourced resources
 - Late to market risks
 - Professionally planned and managed services
 - The product quality penalties
 - Professionally executed services