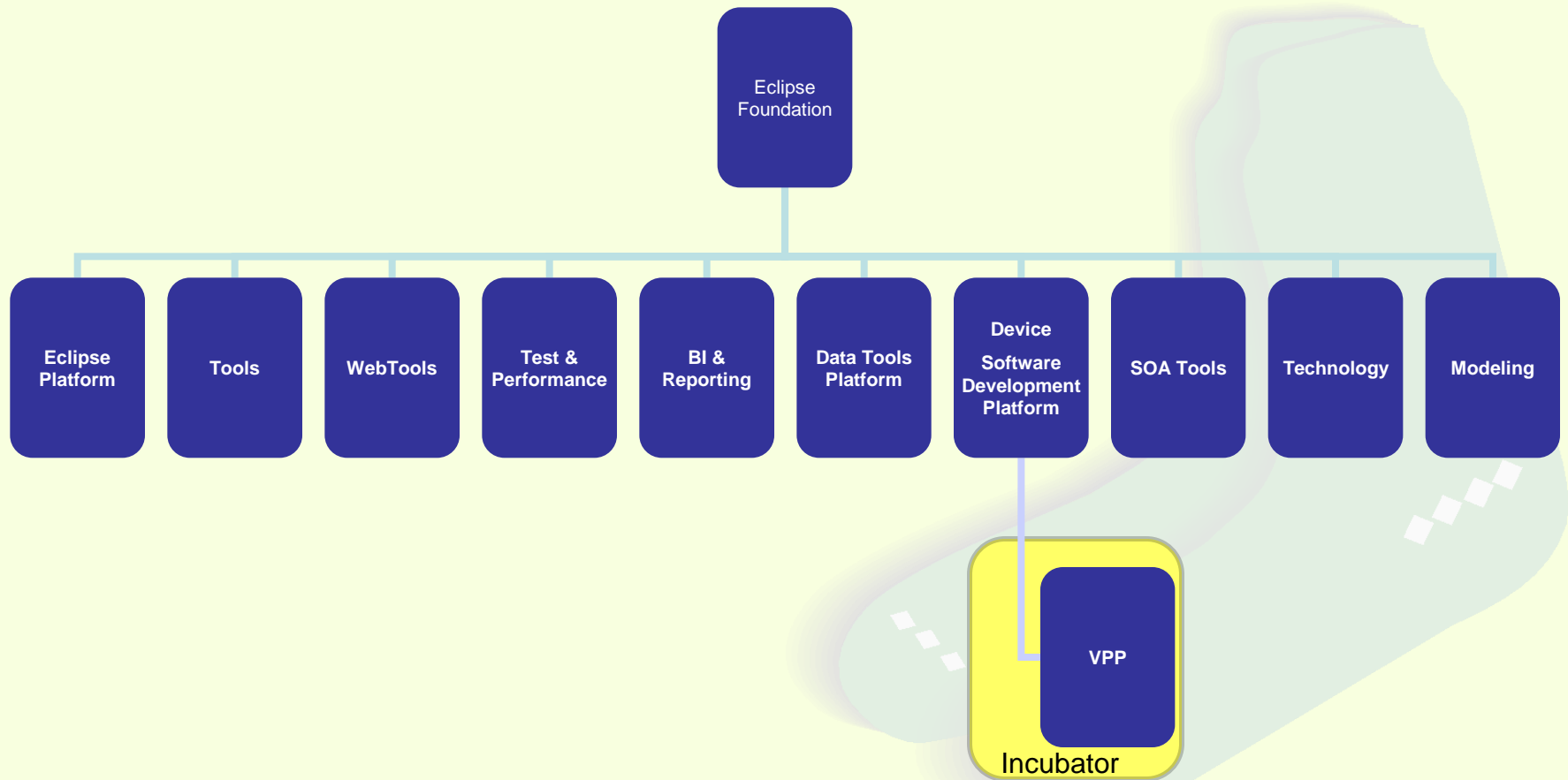

Eclipse and ESL, the VPP project

Mark Burton, GreenSocs
(presented by: Doug Gaff, DSDP Lead)



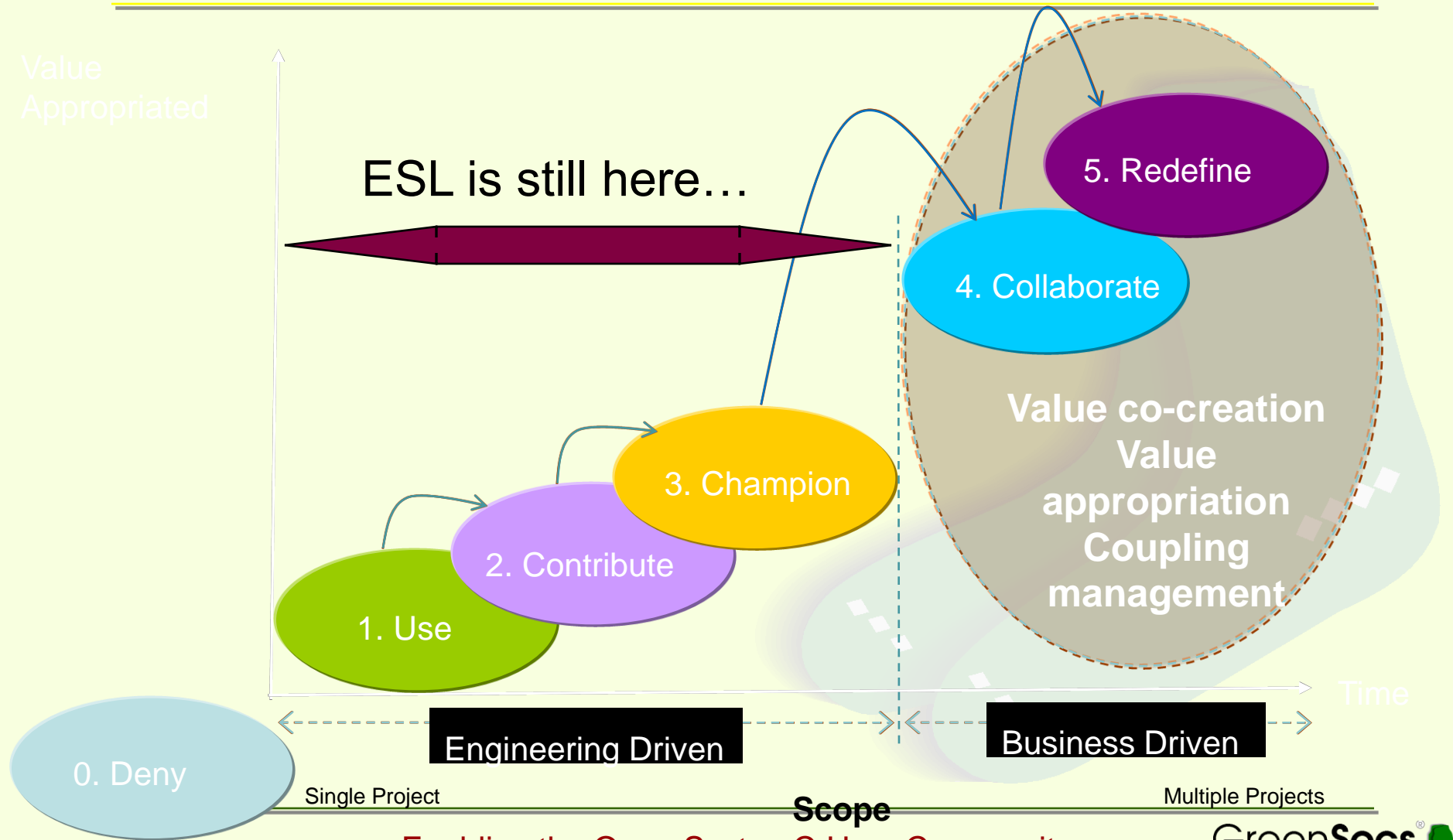
Eclipse Top-level Projects



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Value from OS Projects – Model



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The Eclipse Train....



The train leaves, and we all try to hang on....

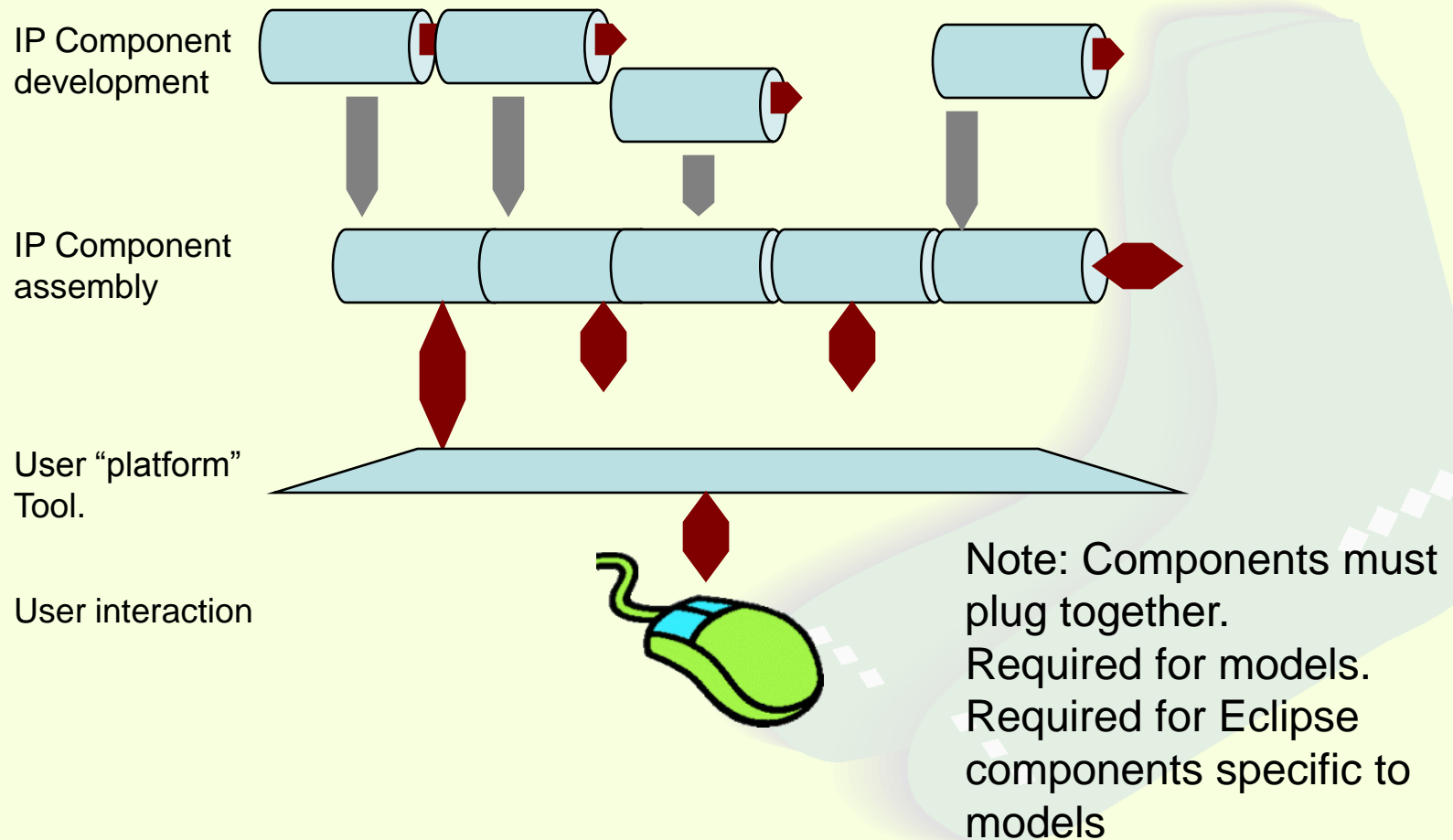
But it's not so easy....

The last thing we want is that the train crashes off the end of the track!

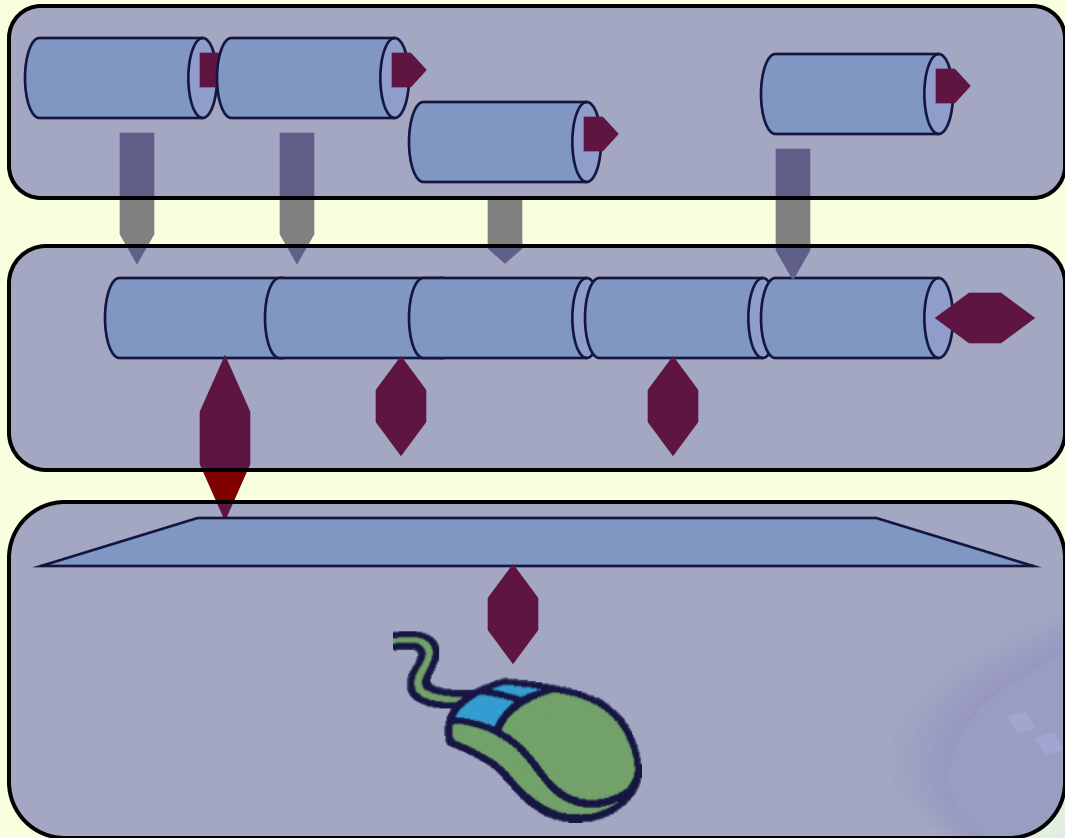
EDA companies seem to be finding it hard to stay on the Eclipse trains they end up sticking with a release suffering the problems, and not Benefiting from the fixes.



ESL Deployment Chain



Eclipse usage



Eclipse Modelling Environment,
Using e.g. SystemC

Component assembly Environment
(e.g. Visualisation of IPXACT XML connectivity descriptions)

Software debug Environment
with connections into
e.g. SystemC Platform model

VPP: is

- ESL framework that multiple vendors can plug their technology into, such that the different pluggings can know about each other.
- FRAMEWORK:
 - Common connectivity to “environmental” services
 - Stop/Go type services on the SystemC simulator
 - User logging services, and user interaction services
- TOOLING:
 - Exemplar non competitive tool components, using the VPP Framework.
 - ESL language specific extensions:
 - E,g, SystemC Syntax highlighting, Hierarchical browsing, and structural browsing (SystemC defines how modules are connected together)
- VPP will also provide a common focal point for ESL vendor and user concerns about Eclipse, in order to co-ordinate their efforts to fix problems in both VPP and other related projects.
- VPP will be a project inside the DSDP Incubator.

Tactical solutions

- FRAMEWORK: Simulation aware modelling environment:
 - Simulation control environment (start, stop, Simulation breakpoints etc)
 - Links to TOOL INDEPENDENT Control and Configuration frameworks (GreenControl, and GreenConfig)
 - Integration with scripting tools - e.g. GreenScript (Python scripting for SystemC).
 - Analysis and user interaction environment:
 - Output of analysis information into Eclipse environment
 - User interaction (keyboard, screen, etc) from Eclipse linked through to SystemC.
- TOOLING:
 - SystemC aware modelling environment:
 - Structure browser
 - Syntax highlighter
 - Configuration
 - Model execution
 - Syntax highlighting
 - Module tree viewer
 - (Today code exists, but, has fallen off the train!!!)

How to make it happen

- VPP due to launch Q2'08
- NEED YOUR SUPPORT
- GreenSocs committing support effort, and some initial coding...
- Needs MUCH MUCH more...
- GreenSocs can be contracted to provide engineering resource to make this happen.....



GreenSocs: THE ESL F/OSS project

Non-core Infrastructure F/OSS to improve productivity.

Quick Simple Industry ready ESL package management



Enabling ESL interoperability

SPECIFIC IP interfaces

Generic Library Components

GreenSocs is to ESL what Eclipse is to development environments

Enabling the Open SystemC User Community

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GreenSocs, VPP and Eclipse

- Eclipse is “just” one of the pieces of infrastructure the ESL community needs
- GreenSocs is ideally situated to assist in it’s creation, maintenance and support.
- GreenSocs has deep connections to universities and other research labs where work on Eclipse is on-going.
- GreenSocs is investing time to build the VPP project, and will continue to play a central co-ordinating role.
- GreenSocs will be “collaboratively contracted” to provide engineering resource for VPP.
 - This is the quickest, cheapest and most effective way of getting things done.

Summary

- VPP is a new proposed Eclipse project
- Addressing the needs of the ESL community
- It needs your help, and support,

For more information, post to the News Group under DSDP.VPP
please visit
www.GreenSocs.com

