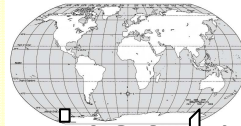

INCO-TRUST: Intl Co-Operation in Trustworthy, Secure and Dependable ICT Infrastructures



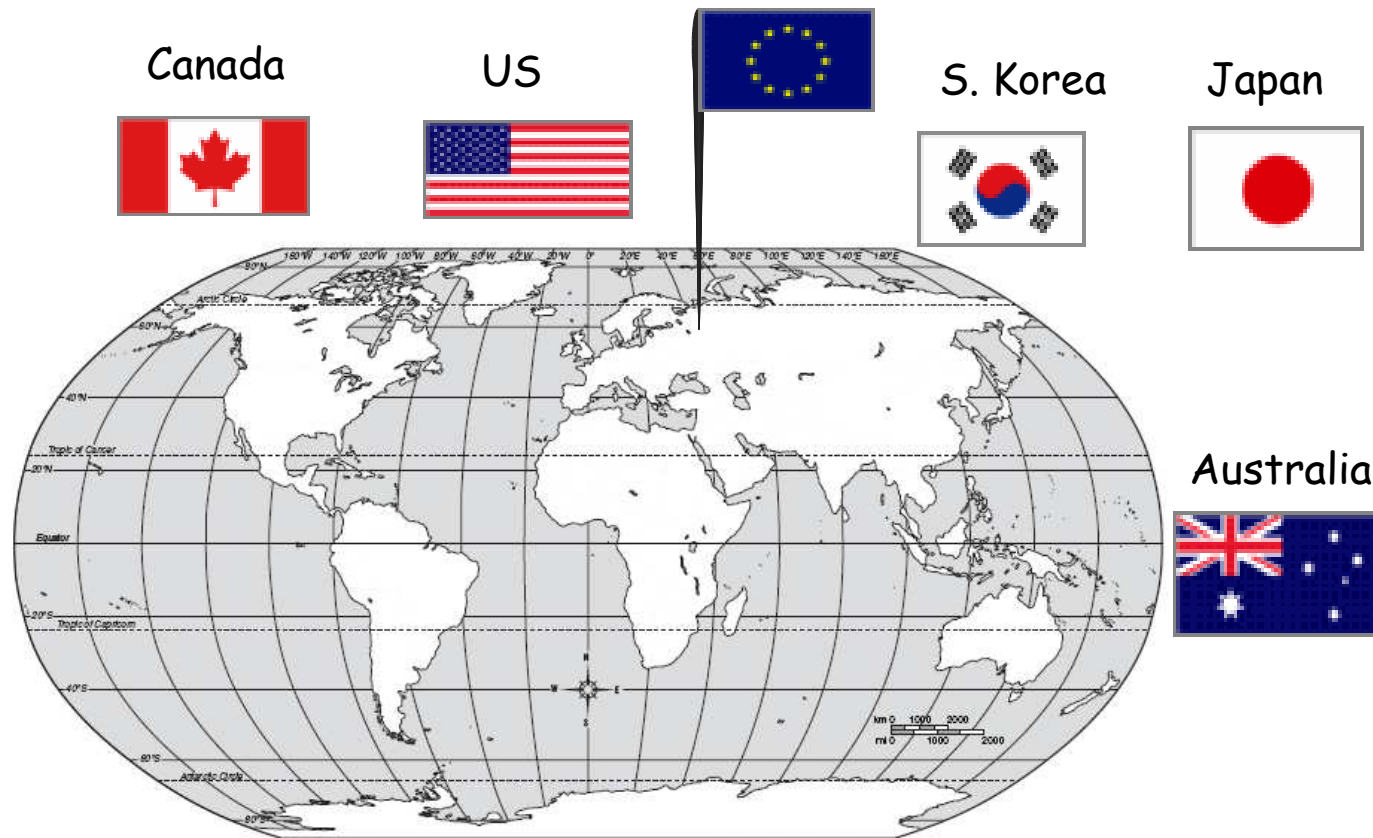
www.inco-trust.eu

Neeraj Suri, TU Darmstadt, Germany

James Clarke, Waterford Institute of Technology, Ireland



INCO-TRUST



INCO-TRUST: to set up a co-operation framework based on mutual interests & capabilities!



The Mechanisms

INCO-TRUST

- Intl. Cooperation in ICT Security & Trust
 - USA (NSF, DHS), Japan (JST), Australia (NICTA), Canada, S. Korea

INCO-TRUST

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The Consortium



THINK-TRUST

Personalisation, Security, Accountability
Vs
Privacy & Human Values!

 **Think-Trust**
www.think-trust.eu

The Consortium



- Composite Social - Legal - Technical Issue considerations

EU, US +++ Partnerships...

- ❑ Understanding problems & technologies of common interest where synergy would be meaningful & add "local" (technological, legal, societal) depth?
 - Web x.0, Persona/Data mgmt (technologies and approaches, storage, access, data transfer rights/jurisdiction), privacy, ...
- ❑ Problems where the interconnected trans-national world of "things" (& attacks, impact, enforcement) behooves us to join forces - where synergy is a no-brainer...
 - Web x.0, interlinked infrastructures (& their protection), testbeds
- ❑ Can we jointly influence and leverage issues?
- ❑ Understanding the "other" sides priorities
 - The mechanism → Inco-Trust

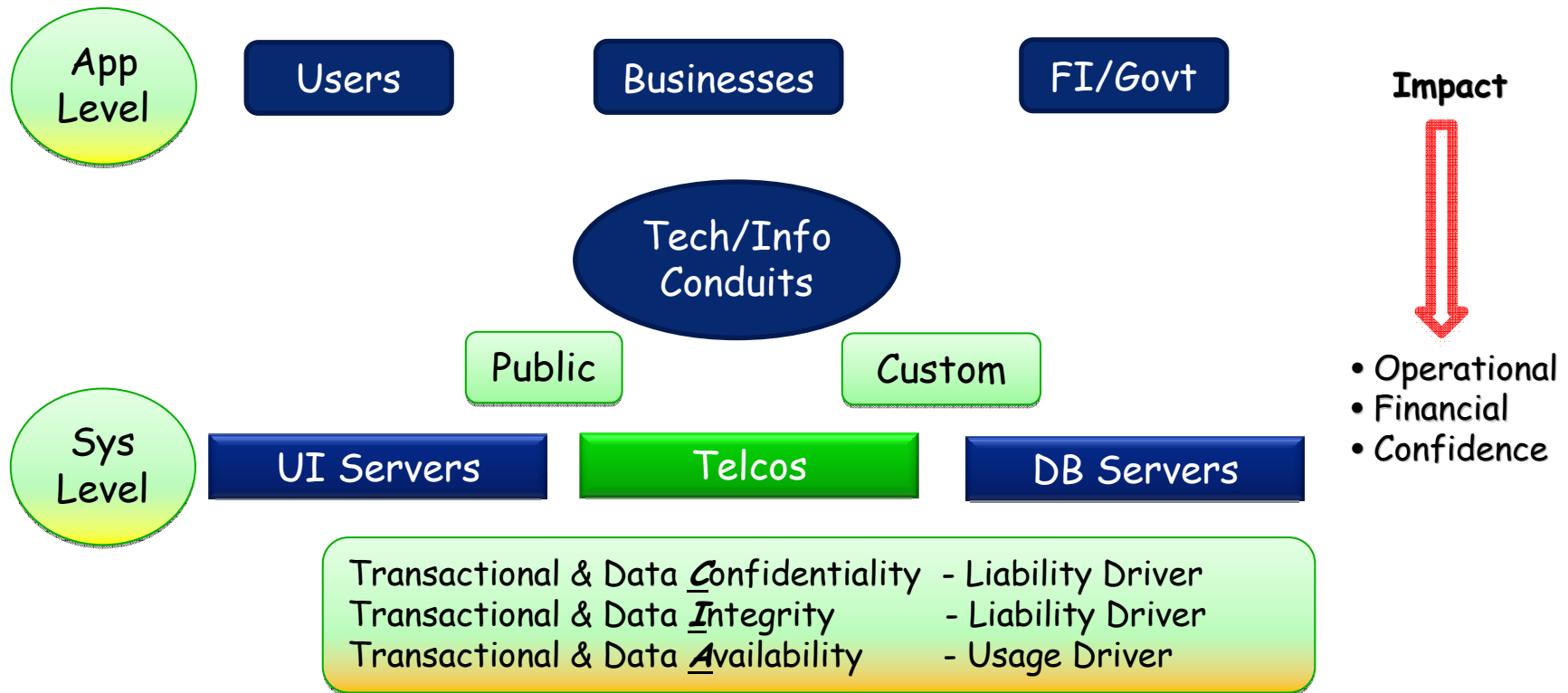
Thrust 1: Future Internet Design & its Security

- Mixed-mode, mobility, WSN - heterogeneity galore!!!
- Will need global inputs:
 - Technical, implementation, + regulatory/legal involvement at varied levels/layers - design & monitoring
 - End user/device compatibilities? Architectural? Protocols? Multi-layered, federated security? ... (PlanetLab-intl.)
 - CyberThreats? (CyLab involvement)
- Reality: composition of "internet" is terribly diffuse with many many many international entities BUT this is also the critical and high impact co-operation area!
- Influence via international standards groups?

Thrust 2: Global Persona Mgmt & Privacy

- Technological base: biometrics, crypto ...
- Usage facets: User-in-the loop privacy, confidentiality
 - human/machine/device ID mgmt coverage: across enterprise lifecycle? partitioned (VM style) access with multiple personas?
 - data storage, access rights across intl. data centers, intl. jurisdiction?
 - repudiation, intl. liability rights? abuse?
 - privacy: varied intl. legalities, varied social acceptability & conformance standards + regulation
 - ... data level (mobile content? DRM?) intl. issues?

Thrust 3: Infrastructure Protection



The Financial Infrastructure Protection (FIP) challenge is not just at a favorite (national) level or element(s) within the FI landscape, but the consolidated, coherent and consistent coverage of the overall environment - the technological, usage and user elements - on a **global** scale.

WG1: Security, Dependability and Trust in the Future Internet

Terms of Reference

- What is our vision?
- Scenarios for technological evolution
- Which TSD issues to address at generic level and which at application level?
- Security & trustworthiness of composite complex services
- Input from user perspective



WG1: Security, Dependability and Trust in the Future Internet

- Covering conceptual and implementation aspects across the spectrum of multi-layered network and services infrastructures
 - Technological evolution and scalability
 - “Layering” (polymorphic networks, physical, virtual, service, others...)
 - Computing & communication paradigms (incl. protocols/middleware - functionality and monitoring)
 - Emerging Threats
 - Virtualization concepts
 - Infrastructures and testbeds
 - Across enabling technologies
 - Core infrastructures, end users/devices, ...
 - Links with ETPs and FIA



WG2: Privacy and Trust in the Information Society

Terms of Reference

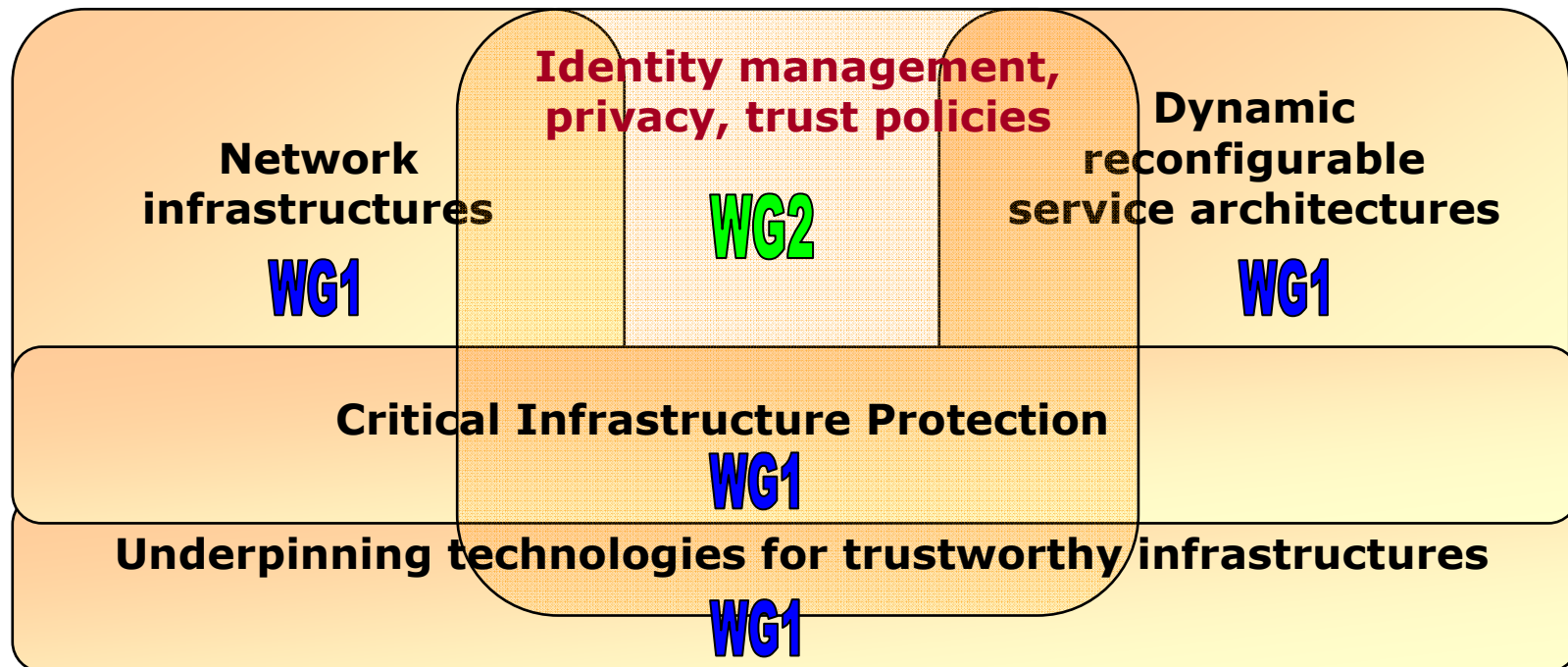
- **What is our vision?**
- **User centricity:** User perspective: Social acceptability, usability, privacy, repudiation and liability issues
- **Economic aspects:** TSD as tradable service
- **Trust and privacy aspects:** convey problems and solutions
 - E.g. short term & longer term scenarios that could make a difference

WG2: Privacy and Trust in the Information Society

- **Covering conceptual, implementation and tradeoffs**
 - Human/machine/device ID (+ multiple persona) management
 - Data collection, data storage, data access and data protection rights for businesses and consumers
 - Usage facets: authentication, privacy, confidentiality
 - Personal privacy versus societal and national needs
 - Standards and regulatory issues
- **Covering non-technical needs and concerns, from social and economic viewpoints (costs vs. benefits quantification), from the human and personal to the organisational and legal/governmental**
- **Across varied application domains and enabling technologies**
 - Biometrics, Crypto, Data/Identity Rights Management, Trusted Computing and Communication ...
 - Deployment case studies



Mapping WG Coverage Areas* of F5 "Security"



* from EC F5 presentation

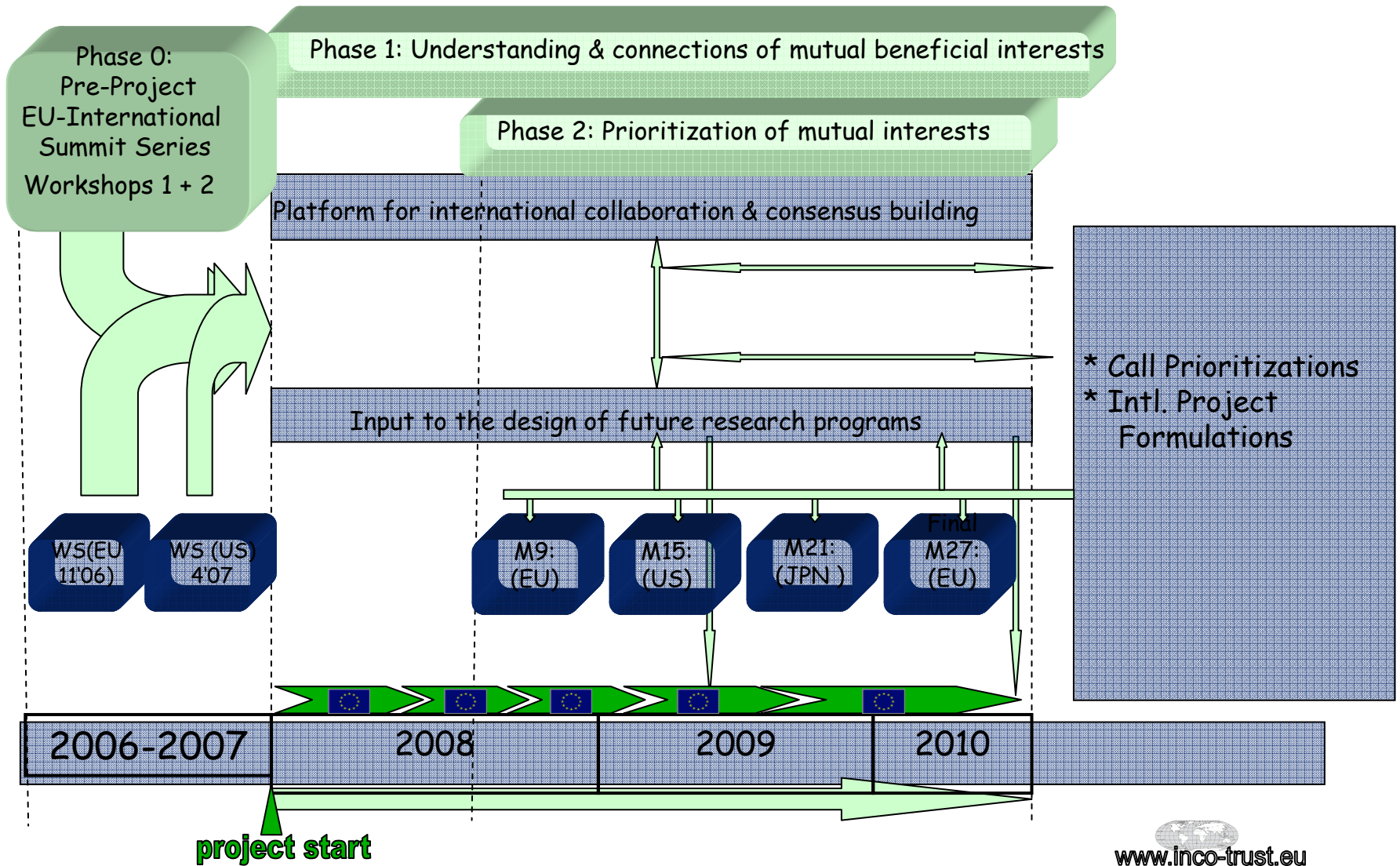
Related Topics raised during EU-US Workshops

- ❑ early identification and protection mechanisms for emerging global risks as the digital systems evolve
- ❑ permanently survey and identify the new possible attacks, the potential vulnerabilities due to complexity or just-in time services.
- ❑ look for new emerging risks, while being conscious of the incompleteness and the limitations of all these analyses.
- ❑ aspects related to attack distribution:
 - “information concerning possible attacks, who or what is responsible for the attack, the extent of the attack”[\[1\]](#) ,
 - information gathering;
 - tracking and tracing for forensics to enable prosecution of cyber criminals;
 - balancing technological challenges with legal aspects and privacy of individuals.

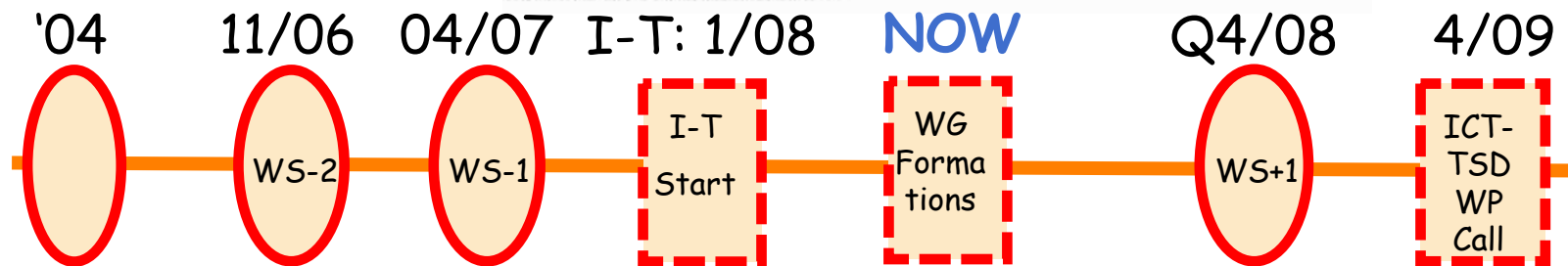
[\[1\] Taken from Infosec Research Council Hard Problems List - see http://www.infosec-research.org/docs_public/IRC-HPL-as-released-990921.doc](http://www.infosec-research.org/docs_public/IRC-HPL-as-released-990921.doc)



The Timeline & Mechanics of Inco-Trust



Next Steps



- ❑ [Please visit www.inco-trust.eu](http://www.inco-trust.eu)
- ❑ jclarke@tssg.org, www.wit.ie, www.tssg.org
- ❑ suri@cs.tu-darmstadt.de, www.deeds.informatik.tu-darmstadt.de



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