

Integrated Site Security for Grids

EU-FP6 Project 026745

François Fluckiger

CERN

Integrated
Site
Security for
Grids

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Integrated Site Security for Grids

Overall aim

"Contribute to the consolidation of the European Grid infrastructure in the field of computer security"

Focus

- Site Security to complement Grid security
- Key concept
 - Integration of all security components
- Project Objective:
 - a. Create expertise
 - **b. Disseminate** expertise

ISSeG Facts and Figures

- Four Partners
 - CERN (coordinator)
 - CCLRC, UK
 - FZK, Germany
 - CS-SI, France
- Budget: 1086 K€

Start: 01/01/06

2006 2007

Two years project

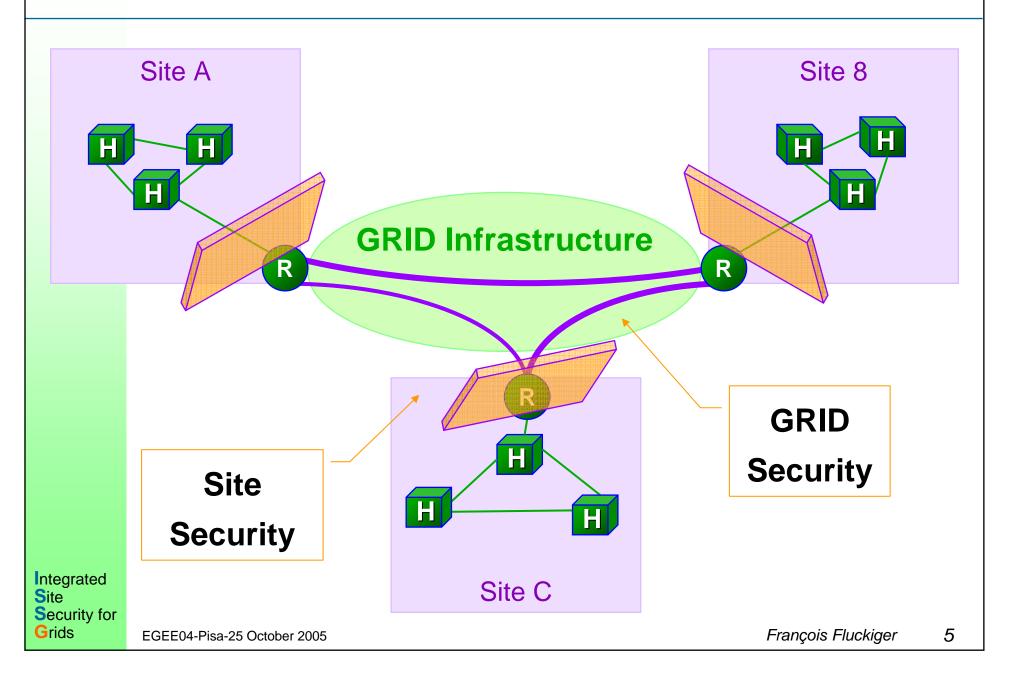
← 2 years →

Site vs Grid Security

- Grid Security
 - Authentication / Authorization in VOs
 - Traveling Data integrity
 - Specific security incident
- Site Security
 - Technical Security
 - Policy, Regulation, Administration
 - Training and sensitization



Site vs Grid Security



ISS: The Three Dimensions

Technical Infrastructure

Network

En-user systems

Servers

Mission-critical systems

EGEE04-Pisa-25 October 2005

Policy Regulation Administration

Policy formation \ enforcement

Rules and Regulations

User registration

Training Sensitization

End-users

System managers

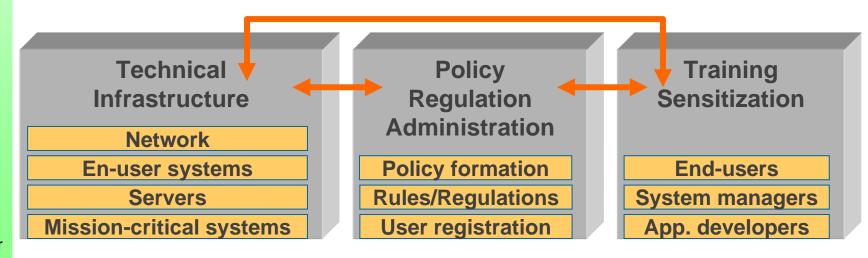
Application developers

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Integrated Approach

- "Actions or decisions affecting one security component should be checked against other components likely to be affected, which in turn may have to be adapted"
- "Good synchronization necessary between changes affecting transversally multiple components"
- Examples of poor synchronization include:
 - New anti-spam or virus detection measures translated with delay into end-user information / training material
 - New security policy published whilst technical components necessary to their enforcement are not yet fully operational



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EGEE04-Pisa-25 October 2005

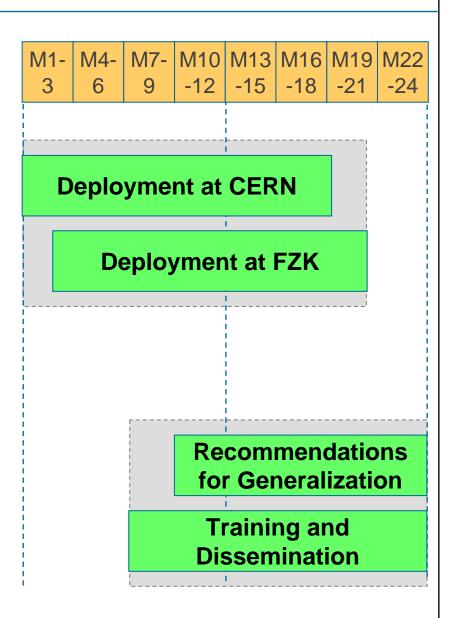
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7

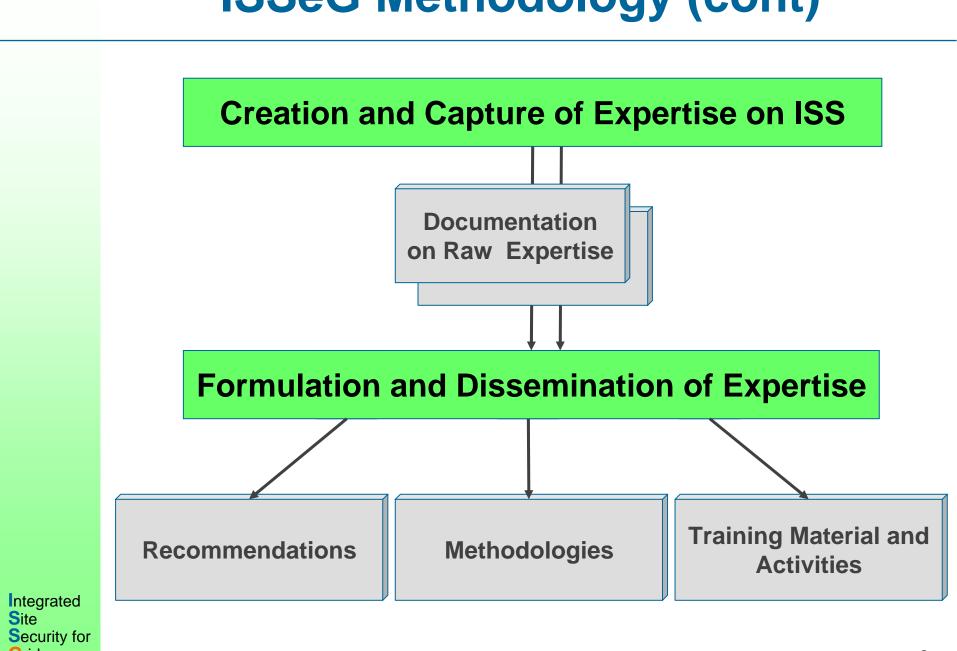
ISSeG Methodology

- Expertise Creation
 - ISS deployment at CERN
 - ISS adaptation and export at FZK

- **Expertise Dissemination**
 - Recommendations for ISS generalization
 - Training and disseminations actions



ISSeG Methodology (cont)

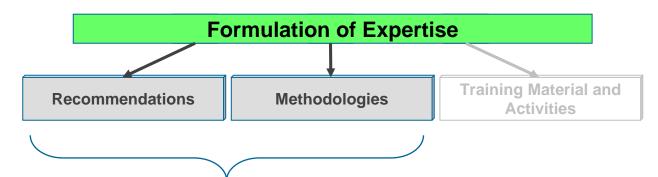


Grids

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Expertise Formulation: Outcomes



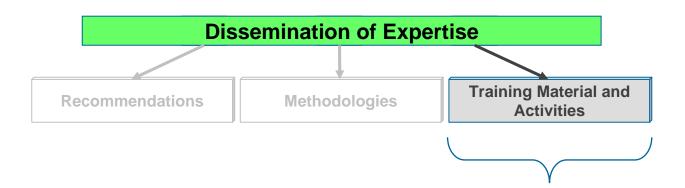
- Recommendations for ISS Generalization
 Separate site-specific from generic aspects
 - Technical architecture
 - Policies
 - Organization
 - Training plans

Methodologies

For security auditing of new sites

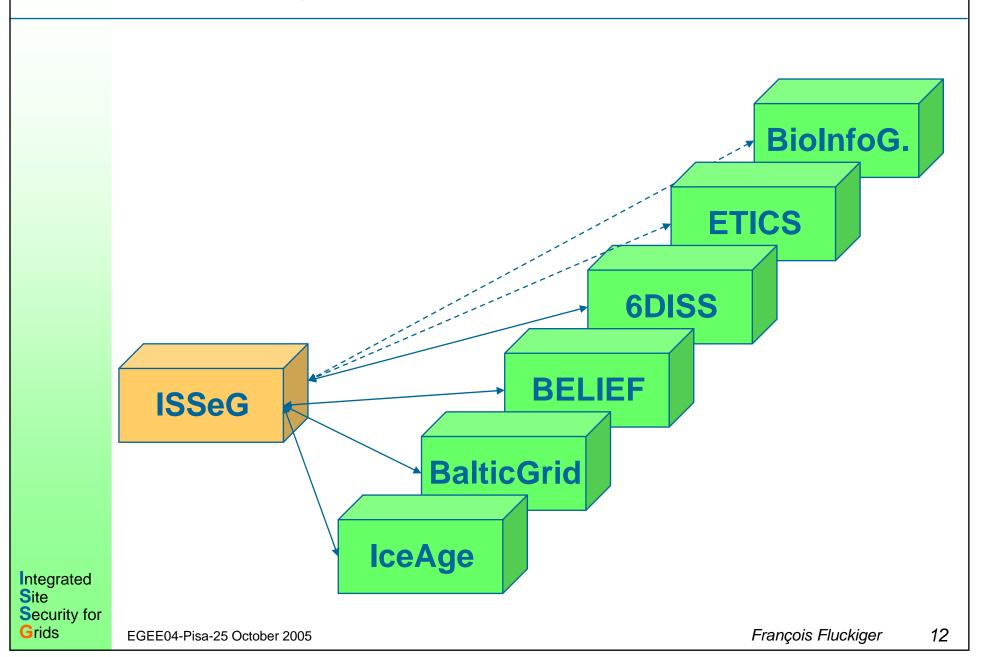


Expertise Dissemination: Outcomes

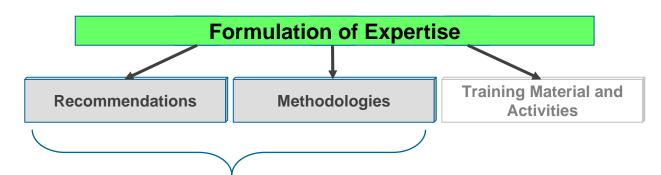


- Training and dissemination Web Site
- Pilot topical school on site security
- Workshop on ISS with EGEE Site Security Officers
- Participation in (educational) events
- Specific dissemination actions to user communities

Synergies with other EU projects



Synergies with other EU projects



- Liaison with Grid Security structures
- **** * * * *
- EGEE Security Policy Group

Involvement of User Communities



via EGEE Application Activities

- Astrophysics
- Bio-Informatics
- Computational Chemistry
- Fusion Physics
- Hearth Sciences
- High-Energy Physics



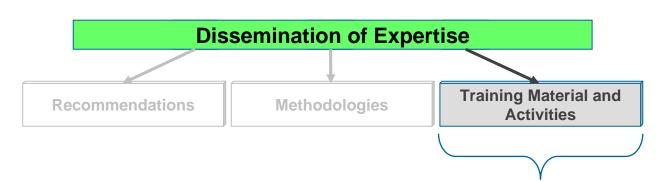
via Other Grid-related projects

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Synergies with other EU projects



- Training and dissemination Web Site
- ****
- Web site Crossreferencing

- Pilot topical school on site security
- ***
- Partnership with other project event

- Workshop on ISS with Site Security Officers
- ***
- Co-located with other project event

- Participation in educational events
- *** * + * +
- Provision of lecturers, content

Specific actions to user communities



via Grid-related projects

Towards Joint Actions

Agreement on the principle of joint actions

IceAge

- Cross referencing
- Share of education material
- Exploitation of IceAge dissemination channels for educational material

Towards Joint Actions

Agreement on the principle of joint actions

BalticGrid

- Cross referencing of education material
- (ISSeG) presenting at BalticGrid workshops and seminars
- (ISSeG) lecturing at BalticGrid summer schools / tutorials



Towards Joint Actions

Agreement on the principle of joint actions

BELIEF

Include the ISSeG training plan in some of BELIEF events

Two workshops, two international conferences

 Use the BELIEF portal to identify new partners interested in deploying the ISS

User community database for trying and forge alliances with industry & research in the fields of elnfrastructures

Towards Joint Actions

Agreement on the principle of joint actions

6DISS

Identify technical areas of mutual interest

which overlap the wide-area networking domain of 6DISS and the site security domain of ISSeG

Organize as appropriate actions of mutual benefits

such as cross-reference of educational material and cross-participation to dissemination events

Beyond ISSeG

- ISSeG is a two-year project
- Too short to achieve wide-scale ISS generalization
- Sufficient to create the conditions for it
 - methods
 - recommendations
 - training all validated by the two deployments
- ISS generalization ...
 - ... may be the subject of a second phase