

FIRE

Gateway to trustworthy ICT innovations in Europe

Supported under:



Industrial & Research Challenges arising from User Requirements in Trustworthy ICT

Crossing the Valley of Death

Prof. Norbert Pohlmann

TeleTrust, Institute for Internet Security - if(is)

FIREevent



Brussels, 13th October 2014



Clus
Network
Security
Monitoring

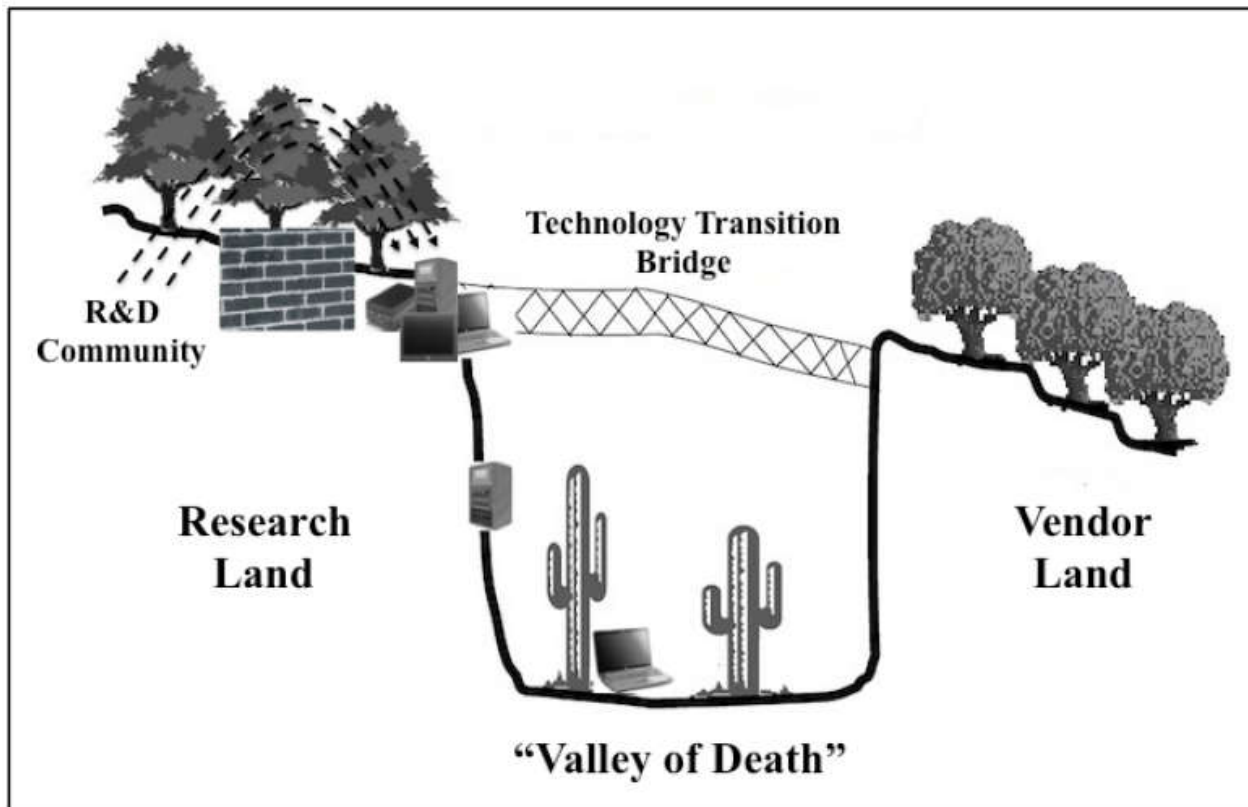
if(is)
internet security.

ADS

LOSEC
LEADERS IN SECURITY

Characteristics of the VoD

- Bridging the gap from research to market



FIREevent



Brussels, 13th October 2014

Source: Maughan, Balenson in <https://ieeexplore.ieee.org/xpl/articleDetails.jsp?tp=&arnumber=6493323>

Challenges

- The **transition** of technology into commercial products is a crucial step in most areas of R&D
- Innovative technologies will not make a difference unless they are **deployed** and **used**
- The **needs** and **requirements** of customers/users have to be met for successful market development
- New products must be made **available** via channels preferred by their target group
- **Strategic collaboration** between research and industry is required to increase the **success rate** of technology transition



Challenges

Demand pull urges transition to market in IT Security

- Government and industry became regular **targets** of sophisticated attacks (e.g. APT)
- Increasing data **volume** and **complexity** of networked infrastructures are constantly raising the bar for IT Security products and services, requiring extensive **research**
- **Crossing the VoD is a mission-critical step for future improvements in IT Security**

FIREevent



Brussels, 13th October 2014

Crossing the VoD

Pre-Commercial Procurement (PCP):

- Public procurers can drive innovation from the demand side, by acting as technologically demanding first buyers.
- This can help creating opportunities for companies to take international leadership in new markets.



Crossing the VoD

Further harmonization of technical standards

- Investments in R&D can be effectively protected by reducing the financial risks of research funding (both public and private)
- Unified standards provide long-term guidelines for R&D
- Harmonization leads to lower market barriers, stimulating competition and innovation
- Additional benefits for SMEs with limited research budgets

FIREevent



Brussels, 13th October 2014

Crossing the VoD

Alignment of innovation strategies and common change management

- Extending timescales for strategic planning is key to sustainable innovation
- Change management is most effective when all stakeholder groups are involved
- Shift from reactive to proactive market development



Crossing the VoD

Strategic funding programs for high risk/high impact technologies

- Supporting research and innovation for markets and product categories in very early stages of development
- Provide complementary research funding sources where private investments are insufficient or totally missing
- Accelerate research activities where market opportunities for commercialization are still weak



Crossing the VoD

Improve collaboration between publicly funded research institutions and industry

- Support the strategic alignment of research priorities
- Coordinate timescales for joint market development
- Formalize information exchange between stakeholder groups
- Encourage SMEs to collaborate with research facilities



Crossing the VoD

Following the Silicon Valley model: Startups, Startups, ...

- The researchers set up a startup
 - direct from the idea to a solution
 - We will see a **very fast transition from research to market**
 - But, the “big companies” have to buy the startup (if successful results)
- Challenges
 - Culture problems (making errors, sell startups, ...)
 - Money available for investment (venture capital)

FIREevent



Brussels, 13th October 2014

Conclusions

Bridging the gap from research to market is a demanding task

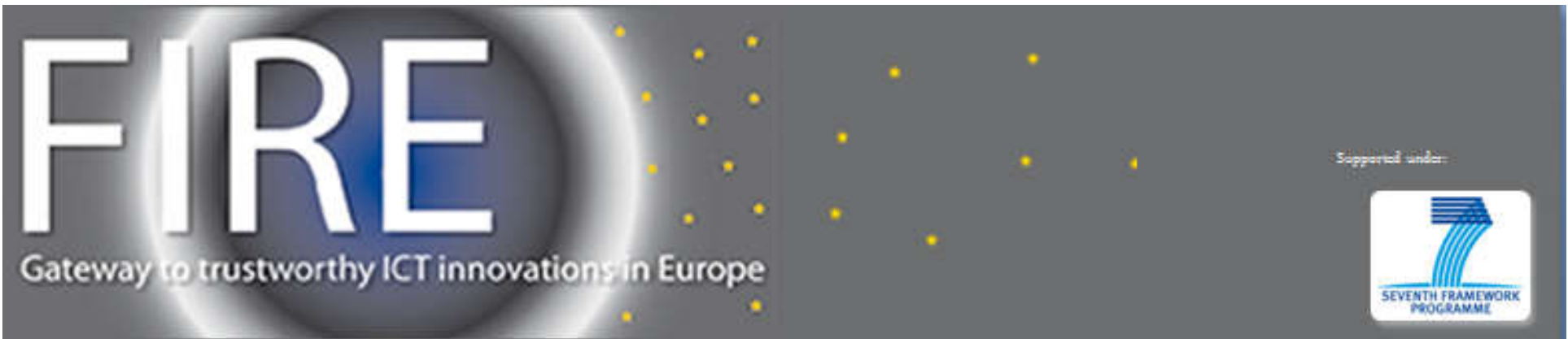
Key requirements for successful transition of R&D include:

- Collaboration of all stakeholders in industry, research and public administration
- Exchange of information regarding needs and priorities on a regular basis
- Communication with policy makers on a regional, national and EU level

FIREevent



Brussels, 13th October 2014



Thanks for your attention!

Prof. Norbert Pohlmann
TeleTrust, Institute for Internet Security - if(is)

FIREevent



Brussels, 13th October 2014



Clus
Network
Security
Monitoring

