FLIGHTMAP CASE STUDY

Portfolio impact analysis in the European Trust in Digital Life innovation program

Version 1.1
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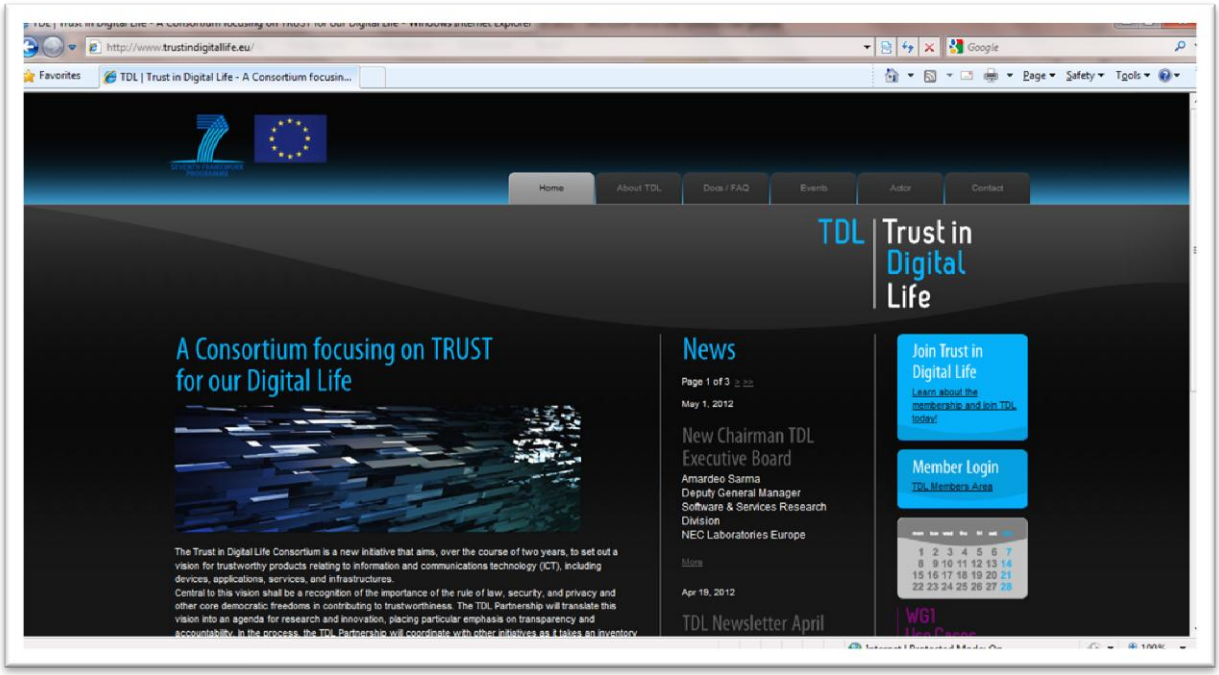
TDL | Trust in Digital Life

Summary

During 2011 and 2012, the Trust in Digital Life consortium (including leading companies such as Philips, Nokia, Microsoft, Gemalto, NEC, Thales, and world-class knowledge institutes) have developed a Strategic Research Agenda (SRA), underpinned with a portfolio and impact analysis using Bicore's FLIGHTMAP tooling. The resulting SRA has been received with a high level of support from participants as well as the European Commission, partly due to the breakthrough in applying this portfolio analysis approach. The success has triggered the embedding of portfolio management and monitoring in TDL's further development of its innovation funnels.



Background and approach

In order to develop a highly relevant Strategic Research Agenda (SRA) as one of the results of the ACTOR project for the Trust in Digital Life (TDL) alliance, a professional portfolio management method with tool support has been implemented to support the members in the development and assessment of research ideas and proposals. The portfolio management tool FLIGHTMAP has been configured with an impact analysis model for economical and societal impact of running and new projects. Data has been entered for the main application areas of TDL, for running and new projects in these areas, and analyses have been conducted to support the partners in their decision-making.

Especially, the so-called 'Trust Paradigm Shift' as presented in the SRA[1] has been modelled and analysed. The potential impact of a well-defined TDL portfolio of projects on achieving this paradigm shift is an important result of this analysis.

[1] Available on the www.trustindigitallife.eu website

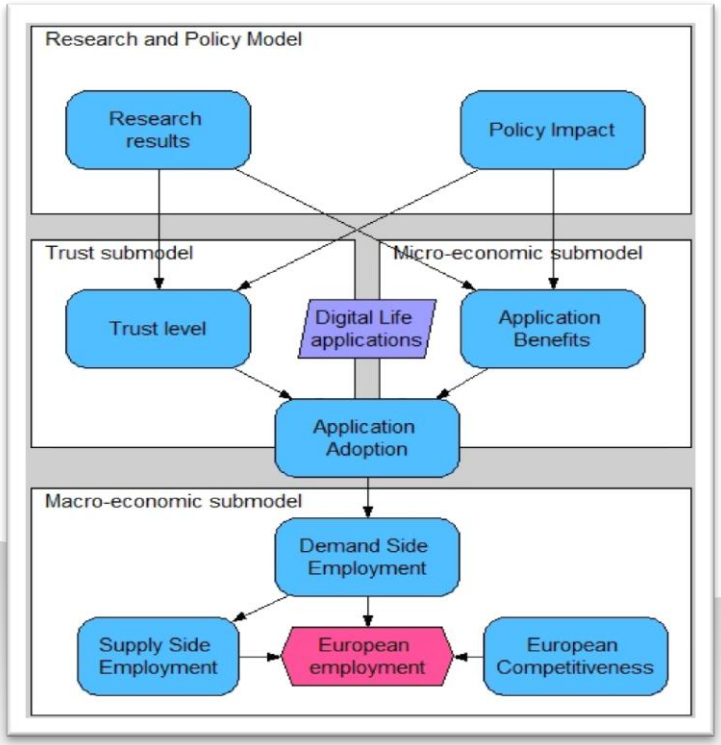
The following approach has been followed:

1. Configuration of proper portfolio management tooling
   The TDL FLIGHTMAP web portal has been configured to address all the data entry and analysis requirements, by configuring stages, costs, trust impact scoring, partnering and economic and societal impact.

2. Entry of currently running EU projects as base case
   As part of the analysis, already running or completed EU projects in the TDL domain have been entered.

3. Collect and assess data for SRA application areas and project ideas
   New project suggestions have been collected and entered in FLIGHTMAP obtained with industry partners Gemalto, Philips, NEC, Microsoft and Thales, driven by gaps in the portfolio. Forecasts were entered for the key markets ICT in Gaming, eHealth, eBanking and mobile Banking, and Cloud Computing. In case of disagreement between the experts, multiple scenarios were entered for the main trends.

4. Develop and implement the Trust in Digital Life (TDL) impact model
   In parallel with the collection of the project data, the TDL impact model for societal and economic impact has been refined. The economic and ICT expertise of University of Corvinus Budapest has been leading in this modelling.

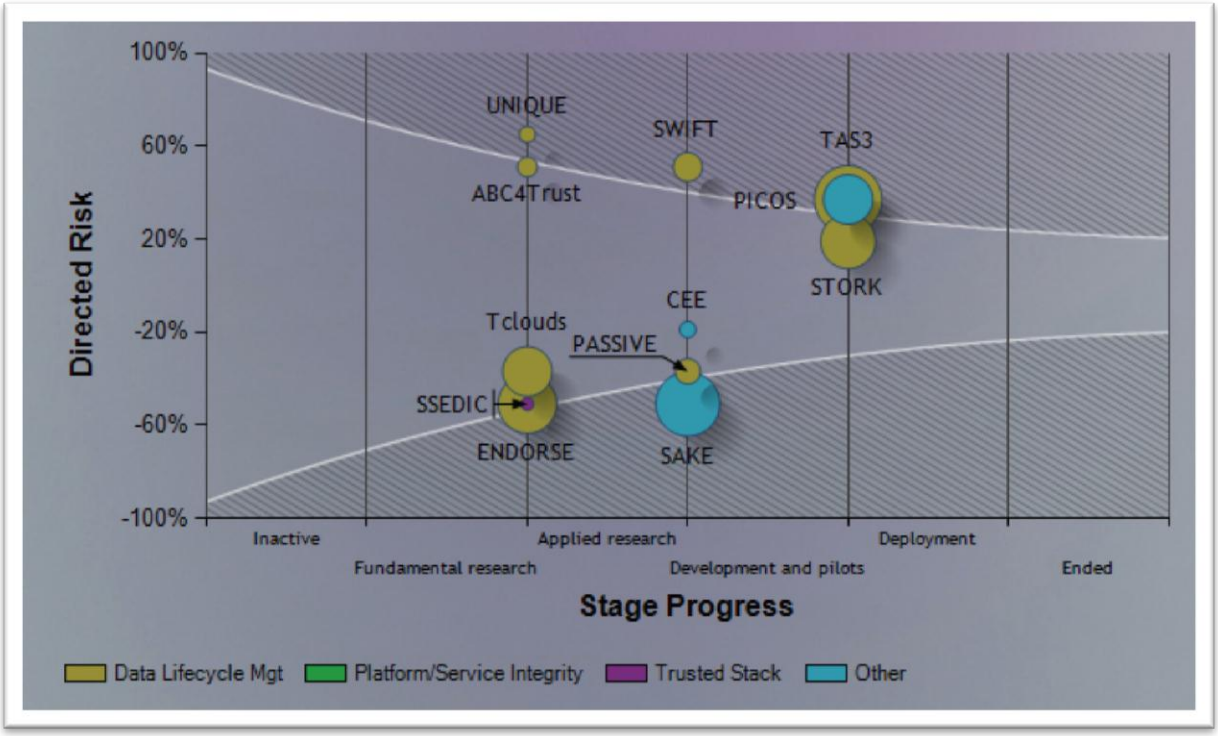


Trust in Digital Life macro-economic impact model

5. Analyse portfolio composition and impact for SRA and Executive Board of TDL
   The TDL SRA includes the analysis results of the portfolio as identified in March 2012. A major result is the expected feasibility of the 'Trust Paradigm Shift'.

Portfolio analysis results

From the funnel analysis of existing projects, it is clear that the majority of projects focusses either on Data Lifecycle Management or on other topics (not directly in the TDL SRA). Trusted Stack and Platform/Service Integrity areas have more white space. Also, from the fact that the projects are mostly around the "border" of the funnel, meaning the risk levels in these projects are relatively high (even though acceptable for their status). Again, this suggests a gap that could be addressed by low-risk (more proven technology) solution deployment.



Funnel diagram of running projects, showing risk vertically and progress status horizontally. The size of the bubbles is proportional to the project budgets.

The Trust Paradigm Shift can be seen in the next figure: successful execution of the proposed roadmap indicates a positive contribution to the realisation of the Trust paradigm shift.

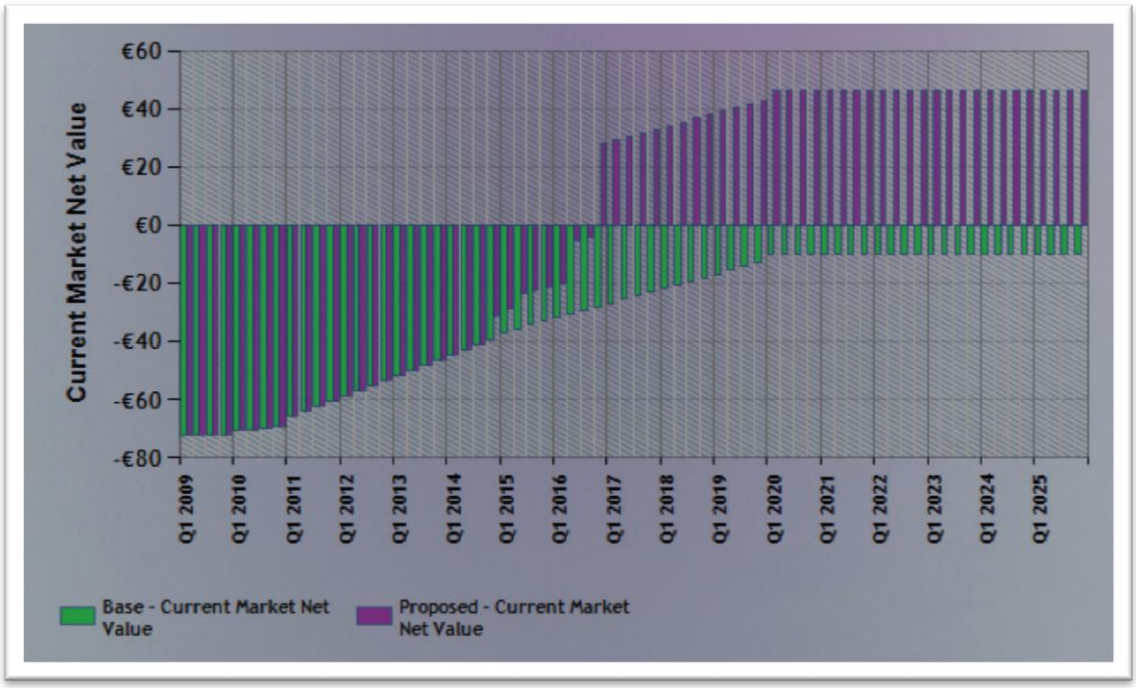


Illustration of the paradigm shift where a low trust future is assumed in the underlying model. The y-axis shows the contribution to the paradigm shift per European citizen (per year). Positive contribution to the trust paradigm shift as result of a successful execution of the proposed roadmaps, leading to an increase of the net user value (purple bars) when compared to the base case (green bars) without execution of the proposed roadmaps. If all proposed projects deliver according to the planned timelines with the expected increase of net user value, reduction of price levels, and acceleration of adoption, this will result in a positive net value in 2017.

Conclusions and implementation

From the portfolio management activities, the following conclusions can be drawn:

1. The Trust Paradigm Shift is feasible and can be driven forward under the current base case scenario, and in lower trust future scenario's, the Paradigm Shift can be achieved only with sufficient project focus and momentum.

2. Volume of adoption of these solutions is key, and a mix of reductions of adoption barriers in mainstream applications and increased consumer value perception are both needed. This is maximized in the current examples for Trusted Stack (including the e-authentication architecture deployment).

3. Low risk (deployment or pilot) projects for existing solutions also fill a gap in the historical portfolio of European projects in the TDL domains.

Although not all markets have been modelled, initial analytical evidence as well as expert feedback suggests the portfolio must include projects for large civic application areas with implicit user trust value such as healthcare, government, and banking, are needed (for their volume) to make a difference in the uptake of trustworthy computing. Relying parties need to be found that can apply the trustworthy ICT solutions in these "mass markets".

The results of the portfolio analysis have been presented by Amardeo Sarma, chairman of the TDL Executive Board, at the Biel event in March 2012. In addition, TDL Executive Board member Petteri Leiviska of Nokia confirms the value of the analysis for the TDL community as follows: "With a dedicated FLIGHTMAP impact model, the Executive Board of TDL was better informed about impact of potential projects, and thus make better decisions about the scope of the Research Agenda. Also the sharing of market outlooks and the need to formulate the impact of projects in a consistent format has helped to build a common language for the community. The further exploration of different future scenarios and the TDL contribution to the Trust Paradigm Shift will be valuable for monitoring the implementation as well."

The Actor reviews with the European Commission also confirmed the value of the portfolio analysis approach for transparency in decision-making and for aligning all stakeholders around the impact of the program. Further deployment of the portfolio analysis approach supported by FLIGHTMAP is now underway for the follow-up of Actor.

More information

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