Time to Value

One of the potential benefits from socio-technical analysis is that it has the potential to reduce the 'time to value' for new, complex IT systems that are being deployed in an organisation.

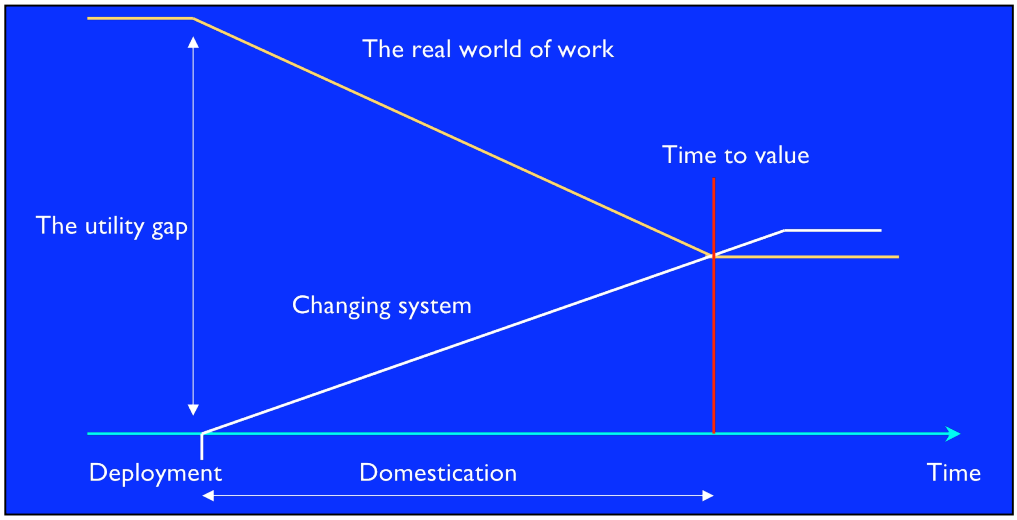
Time to value (TTV)is a notion that has been around for a while and loosely it is the amount of time between some starting point and the time when a deployed system or service starts to deliver real business value. I have been deliberately vague in using the terms 'some starting point' because, in what I've read about this, you can start in different places:

- When a decision is made to procure a system. This is the most general so the TTV is the procurement time + development time + the deployment time + domestication time (I'll come to this later).
- When a system is delivered for deployment. TTV therefore is the deployment time + domestication time.
- When a system is deployed and put into use in an organisation. TTV is therefore the domestication time.

The domestication time is the time between when an organisation starts using some new system until the time when that system has been accepted and embedded in the normal, routine everyday work of the organisation. Initial problems have been sorted out, training courses completed, processes adapted. Users don't have to look at manuals and help files to use the system and they understand what work arounds are required to avoid the inevitable problems and difficulties.

All systems have this domestication time. Sometimes its relatively short – a few days but sometimes it takes years before a system settles down into routine use.

Domestication time is required because, when a system is delivered, there is a 'utility gap' between what the system delivers to its users and what is really required. As the system becomes domesticated, it is changed and configured to fit the organisation and the organisation itself adapts its way of working to the system.



To reduce the time to value, we can:

- Narrow the utility gap between what is delivered and what is required

- Reduce the deployment time through design and by considering how the deployment impacts the organisation.
- Reducing the domestication time

Where does socio-technical systems engineering help?

The essential problem is that our current systems engineering processes pay insufficient attention to social, organisational and cultural factors when analysing what a system should do and how it can be used. The resultant mismatches mean that there is a wide utility gap on delivery of the system. Socio-technical systems engineering can help to reduce the time to value in 2 ways:

1. By helping narrow the utility gap between the system and reality when it is initially deployed. A shorter domestication time is therefore required.
2. By helping with the process of domestication and identifying system/organisational changes that can be made .

Socio-technical approaches can therefore be applied at different stages in the process:

- If used at an early stage in the process, by identifying organisational requirements that may not be considered by the normal requirements engineering processes used by an organisation.
- By acting as a requirements 'sanity check' to identify requirements that, in an organisational sense, are unworkable.
- By identifying organisational issues that affect the deployment of a system so that (a) deployment issues are considered when designing the system and (b) deployment is planned for a time when it will have the least disruption on other work. The key thing here is to be aware of the normal rhythms and routines of work.
- If used after deployment, by identifying misfits between the system and the organisation that can be addressed by either system or organisational change.

I'm also guessing that STSE can be useful at the earliest stages of system procurement, especially when the system is intended to cut across departmental/organisational boundaries. We don't have any direct experience of this, however.