The ‘OR of the future’ project FUSION (www.somit-fusion.de) is aiming to develop tomorrow’s patient-tailored precision tools to assist navigation during soft tissue surgery.

A technical concept has been adopted which utilizes a communication server as a platform to handle different modalities, devices and data streams in the OR. The communication server concept relies on an IT business process management tool (www.inubit.de).

The server incorporates engines for plug-ins, security, workflow and XML mapping. The server concept provides process modeling, technical monitoring and task handling at the backend and drives applications as software programs, thin clients and remote plug-in solutions in the front-end.

One part of the project is dealing with the challenge to provide an open platform for the integration of networked medical devices and application specific data to assure that appropriate information for medical decisions is available at the time and place of care. A surgery and an anesthesia cockpit have been defined as interconnected workplaces for which workflows were determined.

It is the long-term goal of the project to derive a general device and data platform that integrates and handles previously incompatible modalities of different vendors with “plug and play” simplicity. (www.mdppn.org).

The project also addresses the regulatory issue of risk management of IT networks when medical devices are a part of the network.