



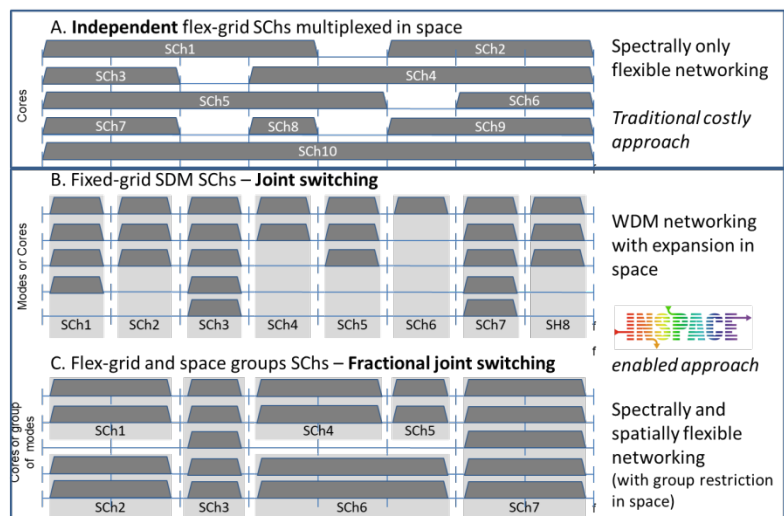
INSPLACE – Spatial-Spectral Flexible Optical Networking: Enabling Solutions for a Simplified and Efficient SDM

European Commission FP7 – Grant agreement no: 619732, INSPLACE Project
 STREP under ICT-2013-11 -1.1– Pervasive and Trusted Network and Service Infrastructures-Future Network
 Start date: February 2014, Duration: 42 months
 Total budget: 2.577.128 € AIT’s budget: 412.550 €

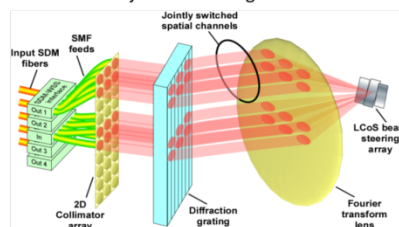
Project Summary

INSPLACE project (<http://www.inspace.eu>) proposes a novel networking approach by extending the established spectral flexibility concepts to the SDM domain and significantly simplifying the super-channel allocation and control mechanisms, by removing current limitations related with the wavelength continuity and fragmentation issues. The new concept utilises the benefits of the high capacity, next generation, few-mode/multi-core fiber infrastructures, providing also a practical short term solution, since it is directly applicable over the currently installed multi-fibre cable links. The realisation of INSPLACE approach is enabled by the development of novel multi-dimensional spatial-spectral switching nodes, which are fabricated by extending the designs of the existing flexible WSS nodes, incorporating advance mode/core adapting techniques. The concept is further supported by novel processing techniques that minimise the mode/core interference as well as new network planning algorithms and control plane extensions that are enhanced with the space dimension.

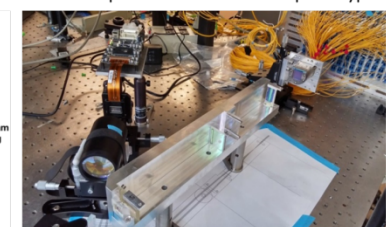
The INSPLACE consortium forms a strong industry driven research team targeting not only the demonstration of the new network concept and its ability to meet the challenges of delivering exponentially growing content over the next twenty years, but also the full exploitation of its potential towards commercialisation.



The IN SPACE joint WSS design



The developed and tested switch prototype



AIT’s Role

AIT is the technical manager of the project and responsible for the overall concept definition. AIT leads the network planning solutions, the techno-economic evaluation studies and the experimental scenarios.

Project partners

Telefonica, Finisar, Optoscribe, HUJI, AIT, CREATE-NET, Optronics, W-Onesys



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