

FlexNet – Work Package 1: Critical Research Issues

Challenges & Ideas



- To select critical research issues (CRI) for the 9 task forces of FLEXNET, and provide suggestions for their implementation.
- To extract the added value from the network of partners' research on critical research issues
- To create a leverage effect for the whole field by solving critical research issues (i.e. "bottlenecks")
- To avoid duplications and foster complementarity with running CSAs and other new research projects in the EU

Not yet balanced properly: open-minded discussions, full involvement of all partners, focus on a few research issues manageable in partners' labs.

FlexNet used "scoreboards" with the goal to collect opinions of all partners on Critical Research Issues in FOLAE.

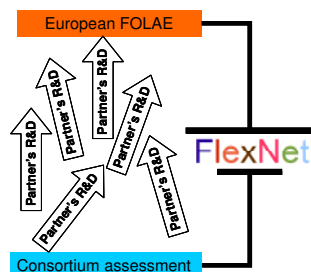
The full involvement of partners has become reality:

- 9/9 scoreboards arranged by TF leaders
- 71/71 partners' contributions received
- >90% available points assigned in the SBs

FLEXNET partners decided to focus on the following Critical Issues (not in order of importance): environmental stable – air-processable materials, high-mobility polymer and low MW semiconductors for sol. proc, low resistivity of printable conductors, high-k dielectrics, substrate layers with modified surface, contact/channel interface treatments to improve injection current, barrier layers and bending tests, barrier permeability. Chemical and morphological stability of materials, measurements of charge carrier mobility and electrical conductivity, standardisation of materials characterisation, optical properties, solution-phase vacuum-free processing, round robin tests, reproducibility of OTFT on large area, accelerated lifetime testing, OTFT foil / Component foil bonding, mobility modelling, performance tolerances.

Expected Results & Benefits

- To create a leverage effect for the whole field by solving critical research issues ("bottlenecks")
- To avoid duplications and foster complementarity with running CSAs and other new research projects in the EU



After the 1st stage (i.e.: consortium assessments, in terms of reciprocal knowledge concerning equipments and capabilities), FLEXNET wants to increase exchange of information about/with running EU projects and CSAs in the field of FOLAE, in order to increase the focus of CRIs and speed up the approach to their solutions.

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