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Developing the next generation technologies of renewable electricity and heating/cooling

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Next – generation interdigitated back-contacted silicon heterojunction solar cells and modules by design and process innovations



NextBase - Deliverable report

D6.2 Tool manufacturing, testing and pilot cell fabrication: SHJ double contacted cells with FF>80% precursors with layer patterning>2ms and $J_0 < 10 \text{ fA/cm}^2$

Deliverable No.	NextBase D6.2	
Related WP	WP6	
Deliverable Title	D6.2 Tool manufacturing, testing and pilot cell fabrication: SHJ double contacted cells with FF>80% precursors with layer patterning>2ms and $J_0 < 10 \text{ fA/cm}^2$	
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Publishable summary

Novel nano-crystalline Silicon doped layers have been developed and successfully transferred to large area 6 inches heterojunction solar cells featuring an inter-band tunnelling contact with median Fill Factor of 80% and V_{oc} up to 736mV. The in-situ masking technology has been integrated into the PECVD reactor giving good layer transfer from 500um down to 100um width. These two successful results open the integration of the novel silicon layers and masking solution into the IBC process.