FrontCIGS
Re-designing front window in flexible CIGS modules for cost-effective moisture protection

Project Duration: 01.2017 - to 10.2019
Initial report submitted: 01.2018

Summary

Flexible PV modules are attractive for installation on buildings (BIPV and BAPV), transport and portable applications because of their light weight, low energy input for manufacturing, as well as reduced installation costs thanks to easy integration with other construction elements. Whereas the previous generation of a-Si thin film modules could not reach large market success mainly because of their low conversion efficiency, the flexible modules based on Cu(InGa)Se2 absorbers have much better commercialization potential as they are twice more efficient, with up to 16.9% for mini-modules.

The project will make flexible CIGS modules more cost-competitive while maintaining extended lifetime and efficiency levels. This will be possible by employing a corrosion-stable electrical contact allowing a less expensive frontsheet, which can also feature the “easy-to-clean” property desirable for BIPV and portable applications.

In the project consortium three R&D institutes will develop innovative front window concepts which will address the need of two SMEs and one equipment manufacturer to reduce the module manufacturing costs. The immediate project outcome will be a new design of the flexible module, with anticipated 20% module cost reduction.

Project consortium

Coordinator and contact details:

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Participating countries and financing:

Country	**Number of organisations involved**	**Project costs in EUR**	**Public funding in EUR**
Switzerland	2	761’764	340’589
The Netherlands	2	711’250	482’000
Austria	1	43’000	0
Total	*5*	*1’516’014*	*822’589*

Funding agencies involved and contracts

Funding Agency	Contract N° and Title
Commission for Technology and Innovation (CTI)	26231.1 PFNM-NM “Re-designing front window in flexible CIGS modules for cost-effective moisture protection”
Rijksdienst voor Ondernemend Nederland (RVO)	TEUE116158 “Re-designing front window in flexible CIGS modules for cost-effective moisture protection”