



## *Flexible & Wearable Electronics*

EU Cascade Funding for Textile  
Innovation

31st of March 2021

**Innovation Action:** DT-ICT-01-19 (*Smart Anything Everywhere*)

**Number of partners:** 14 partners from 9 EU countries

**Grant:** 8M€

**Duration:** 36 months

**Expected results:** 47 Application Experiments (AEs)  
FSTP 2.9 M€ (37% of the grant)

**Open call / 5 cut-off dates**

CUT-OFF	DATES
1 <sup>st</sup> Cut-off	05/06/2020
2 <sup>nd</sup> Cut-off	23/09/2020
3 <sup>rd</sup> Cut-off	15/01/2021
4 <sup>th</sup> Cut-off	07/05/2021
5 <sup>th</sup> Cut-off	31/08/2021



# DIH – Digital transition



Support the European Industry & reinforce its competitive advantage by providing acceleration support for the integration of **Flexible & Wearable Electronics** into novel products, processes and business models

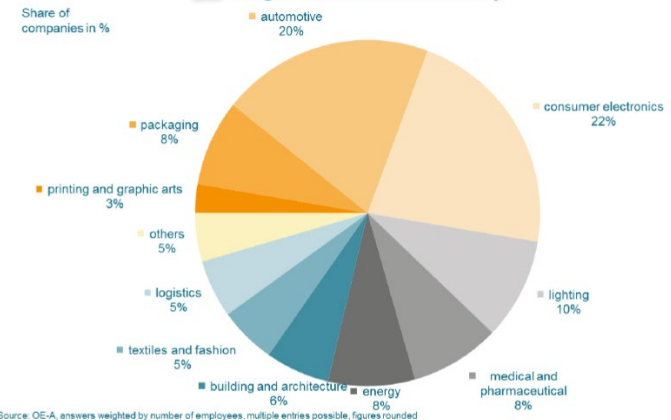
Technologies uptake & new businesses

OE-A Roadmap, 7<sup>th</sup> edition Clusters



**Experimentation**  
(test before invest)

Targeted End-User Industry



OE-A Business Climate Survey on General Trends in Organic and Printed Electronics, October 2018

Technologies adoption

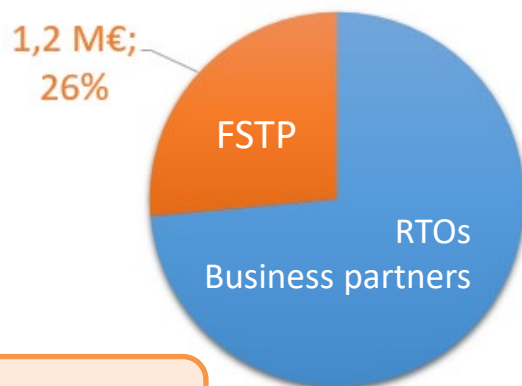


# SmartEEs2 vs. SmartEES - Financial Support to Third Party



2017-2020

4.6 M€ granted IA project



20 AEs supported

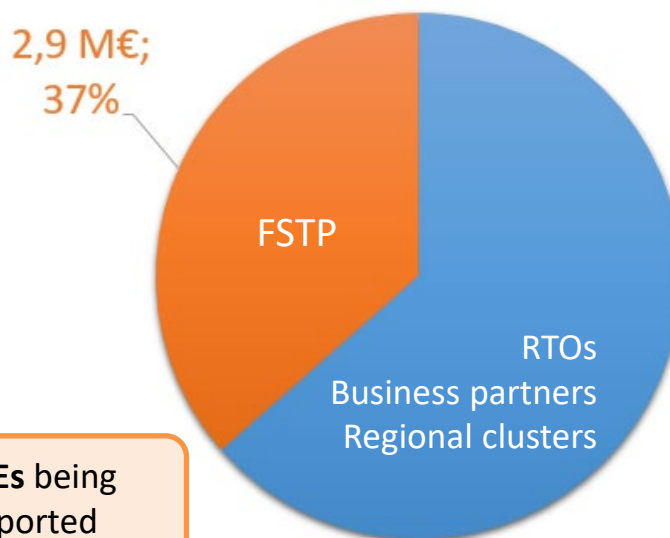
Eligible to FSTP:

SME/MidCap **technology end-users**  
(*Innovative Companies – ICs*)



2020-2022

8 M€ granted IA project



47 AEs being supported

Eligible to FSTP:

SME/MidCap technology end-users (ICs)  
+ SME/MidCap **suppliers of innovation services**



Table 6: OLAE Applied Technologies (SmartEEs offer).

OLED Lighting (*)	TRL 5-6
Organic Photovoltaics (*)	
Flexible Displays	
Electronics & Components (Technologies/ Electronic design / Device design / Circuit design)	
Integrated Smart Systems (Technologies / Software / Firmware) (*)	

(\*) Educational / training support available within SmartEEs2 consortium.

Table 7: OLAE Manufacturing Technologies (InSCOPE & LYTEUS offers).

Print	Technology	TRL		Category	Description
		S2S	R2R		
Screen printing (*)	S2S	TRL 6	Assembly	Low mix assembly (SMD, bare die, foils)	
	R2R	TRL 6			
Inkjet flex Printing (*)	S2S	TRL 4	Assembly	High mix assembly (Packaged die)	
	R2R	TRL 4			
Gravure Printing (*)	S2S	TRL 5	Inspection	Stretch	
	R2R	TRL 4			
Flexo Printing (*)	S2S	TRL 5	Inspection	Lamination (*)	
	R2R	TRL 4			
Nanoimprint Lithography (*)	S2S	TRL 7	Inspection	Electrical testing (*)	
	R2R	TRL 6			
Lift technology (*)	S2S	TRL 6	Inspection	Optical inspection (*)	
	R2R	TRL 6			
Lift technology (*)	S2S	TRL 7	Inspection	Mechanical testing (*)	
	R2R	TRL 6			
Lift technology (*)	S2S	TRL 6	Inspection	Reliability testing (*)	
	R2R	TRL 6			

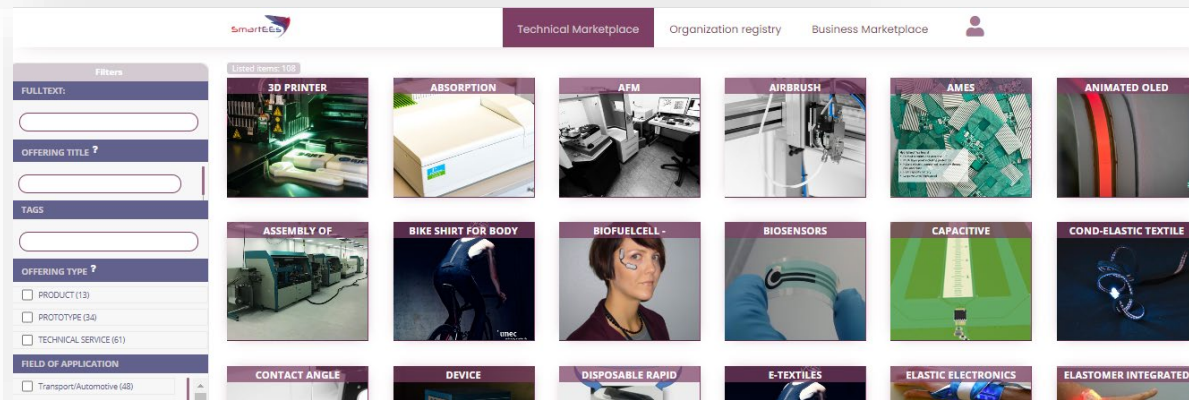
(\*) Educational / training support available within SmartEEs2 consortium.

## Categories of tec services

Table 8: Other Enabling Technologies (additional offer in SmartEEs2).

Smart Textiles	Technology	TRL		Category	Description
		Structural Electronics	Wearable		
Printed electronics on fabrics and TPU (*)	Structural Electronics	TRL 5	In-Moulding	TRL 4-5	
	Wearable	TRL 5			
Fibre placement technology	Structural Electronics	TRL 5	Thermoforming	TRL 6	
	Wearable	TRL 5			
Stretchable interconnection (*)	Structural Electronics	TRL 5	Overmolding	TRL 5	
	Wearable	TRL 5			
3D textiles	Structural Electronics	TRL 4	Post-process. cutting, slitting, laser	TRL 7	
	Wearable	TRL 4			
Weaving/weft or warp knitting structures	Structural Electronics	TRL 3	Stretchable devices	TRL 4	
	Wearable	TRL 3			
Technical embroidery	Structural Electronics	TRL 3	Stretchable interconnection (*)	TRL 4	
	Wearable	TRL 3			
Hybrid yarns by twisting, braiding & core wrapping (*)	Structural Electronics	TRL 5	Print on stretchable films (e.g. TPU) (*)	TRL 5	
	Wearable	TRL 5			
Additive manufacturing (*)	Structural Electronics	TRL 4	Data Analytics	TRL 5	
	Wearable	TRL 4			
Textile surface functionalisation (*)	Structural Electronics	TRL 5	Mechanical characterisation of yarns & fabrics (*)	TRL 6	
	Wearable	TRL 5			
Sheet-core co-extrusion of multilayer thermoplastic coatings (*)	Structural Electronics	TRL 4	APP development Android & IOS	NA	
	Wearable	TRL 4			
Tri component Meltspinning of thermoplastic fibres (*)	Structural Electronics	TRL 4	Automation assembly lines	TRL 6	
	Wearable	TRL 4			

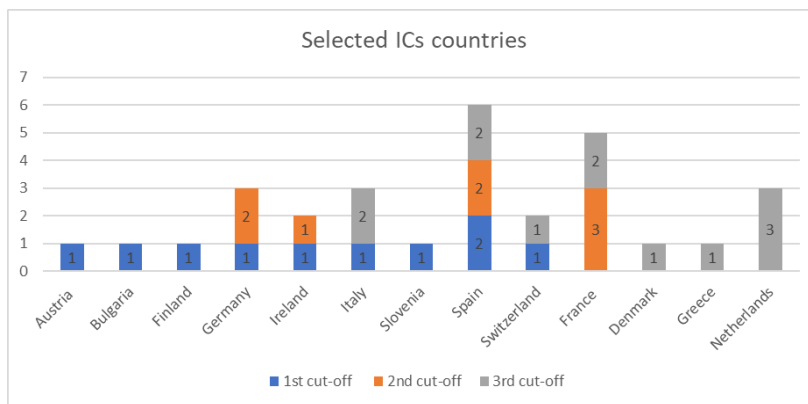
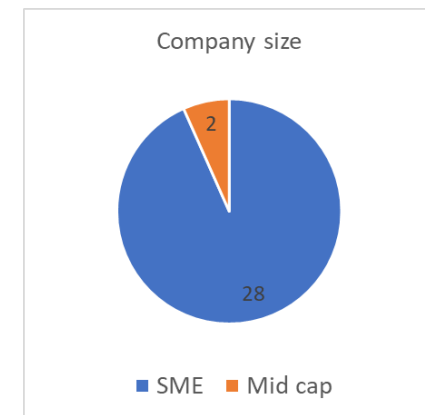
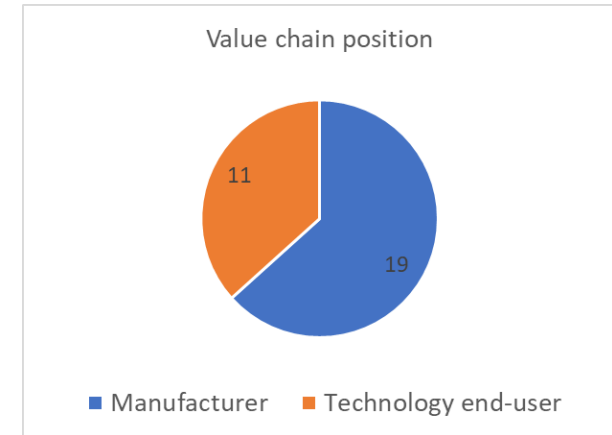
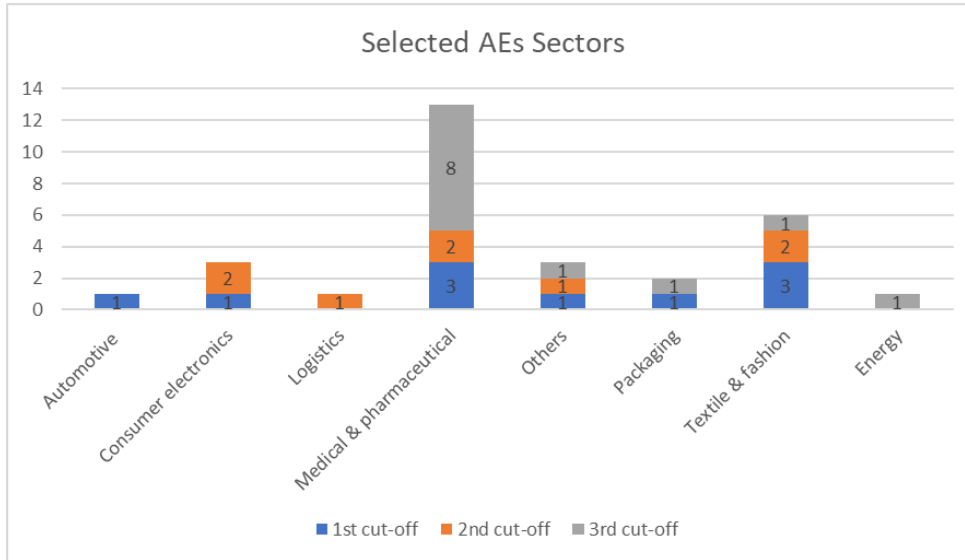
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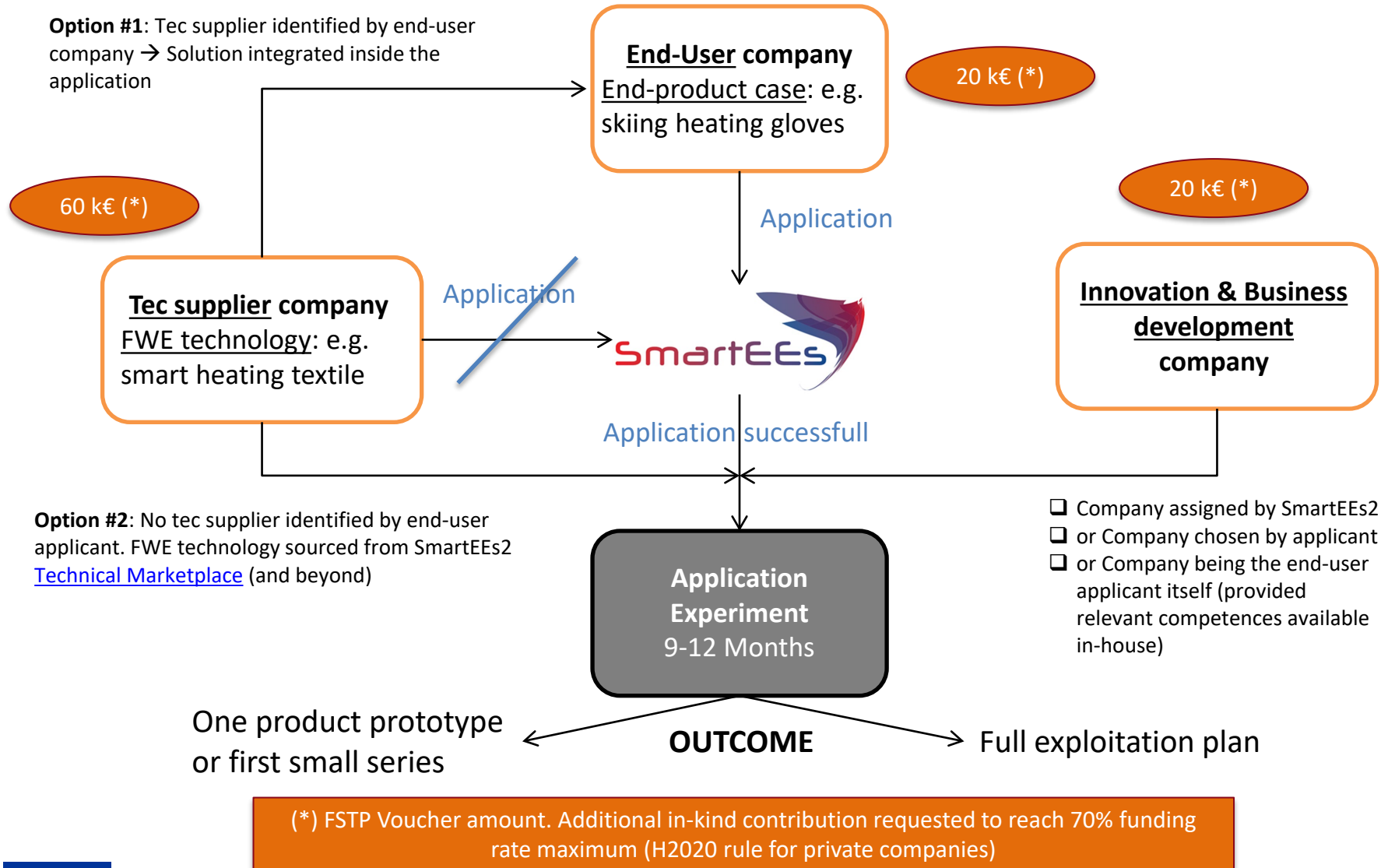
<https://ecosystem.smartees2.eu/technical-marketplace/>



## Selected applicants (ICs)

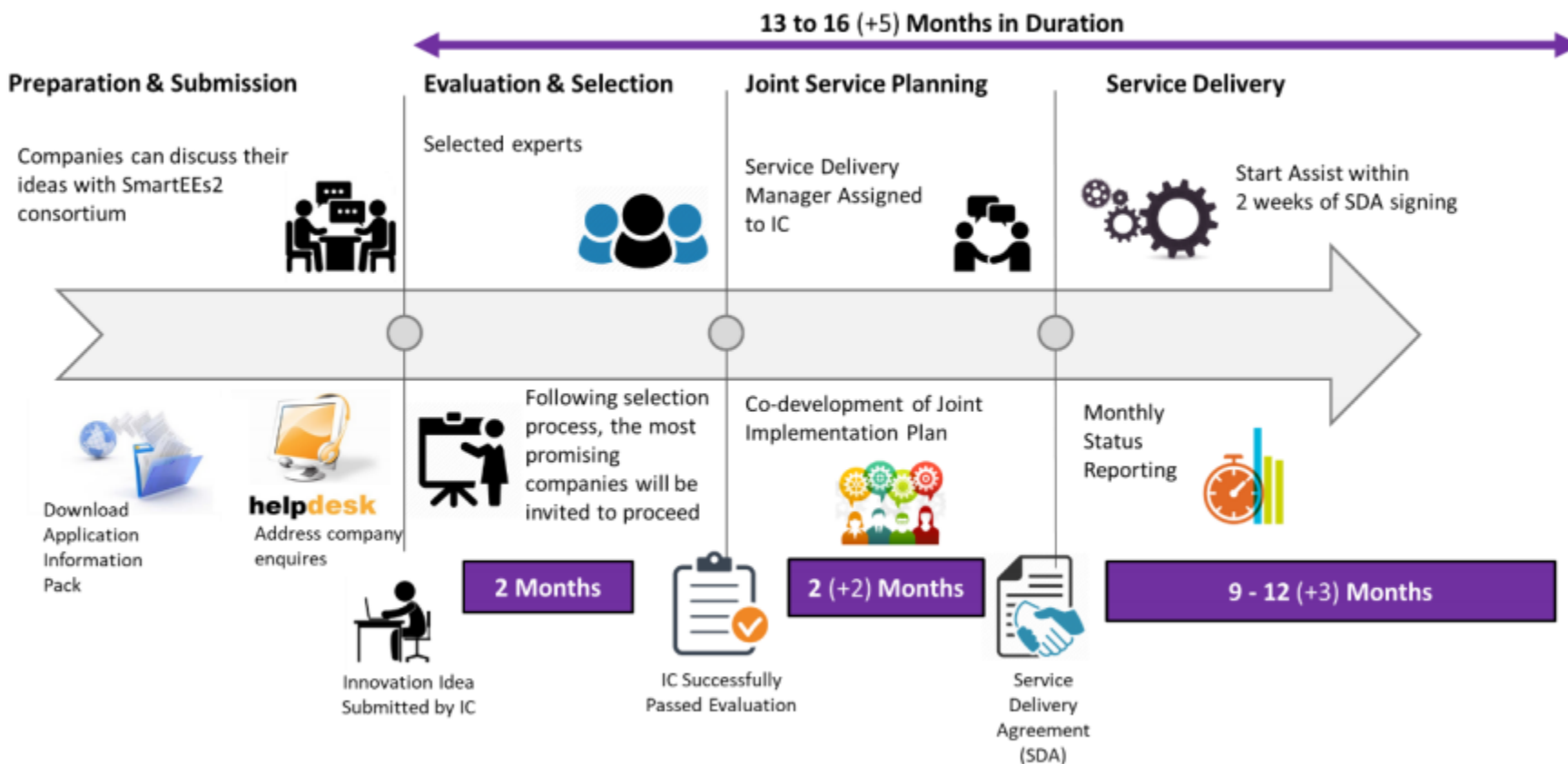


# Financial Support to Third Party (FSTP)



- Company assigned by SmartEES2
- or Company chosen by applicant
- or Company being the end-user applicant itself (provided relevant competences available in-house)

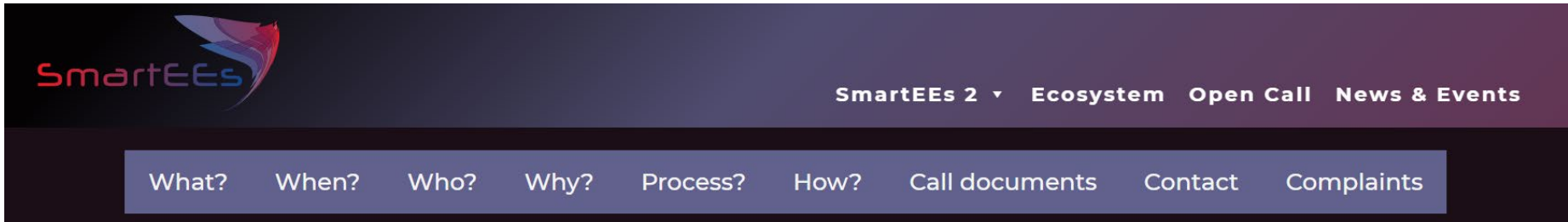






Open Call page

<https://smartees.eu/open-call-smartees2/>



Who

Type of company	Staff headcount	(and) Turnover	(and/or) Balance sheet total
Mid-cap	< 3,000	N.A.	N.A.
SME	Medium-sized	< 250	≤ € 50 m
	Small	< 50	≤ € 10 m
	Micro	< 10	≤ € 2 m

## Call documents

[SmartEes2 Call for Application Experiments](#)

[Application Guidelines](#)

[Service Delivery Agreement \(SDA\)](#)



# SmartEes

## SHOWCASES & DEMOCASES APPLICATION EXPERIMENTS

## OPEN CALL

## ACCESS NEW MARKETS



- New Open Call opened for Application Experiments
- SMEs and Mid Caps
- Experimenting and testing end-product ideas with Flexible & Wearable Electronics
- Support to manufacturing end-products, including upscaling
- Business Service
- Helpdesk

Visit us at LOPEC Trade Fair!

<https://exhibitors.lopec.com/industry-directory/2021/list-of-companies/companydetails/smartees/?elb=8641&OC1660.1.111&uls=2>



SmartEES



THANK YOU!