



NETWORKS

ESB Networks 18 Month Innovation Programme

July 2022 to December 2023

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The purpose of this document is to share with our stakeholders our 18 Month Innovation Programme. This programme aligns with ESB Networks strategic objectives, our PR5 objectives and it supports our commitment to the Climate Action Plan targets. It is represented by three 18 Month Plans under our Innovation Pillars: Future Customer, Climate Action and Network Resilience.

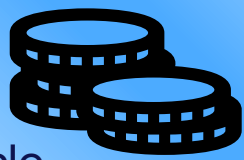
For further information on our Innovation Projects, please visit:

<https://www.esbnetworks.ie/who-we-are/innovation/esb-networks'-innovation-projects>

For any queries on our 18-Month Innovation Programme or any of the projects listed in our Innovation Project Portfolio, please contact us at innovationfeedback@esbnetworks.ie

ESB Networks Innovation KPIs

110
Innovation Ideas 

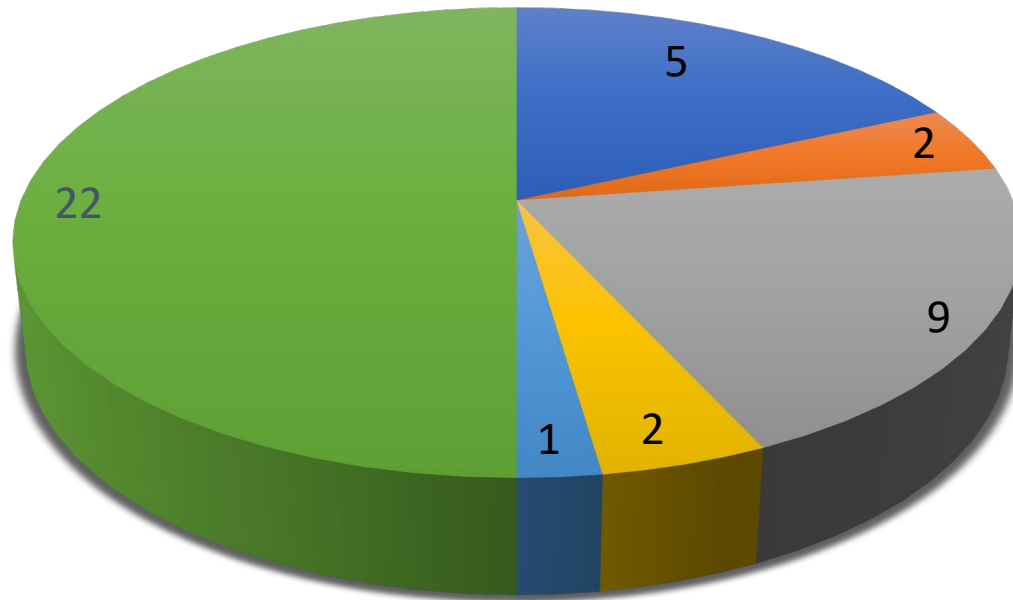
€35M
Potential Life Cycle Savings 

22
Active Projects 

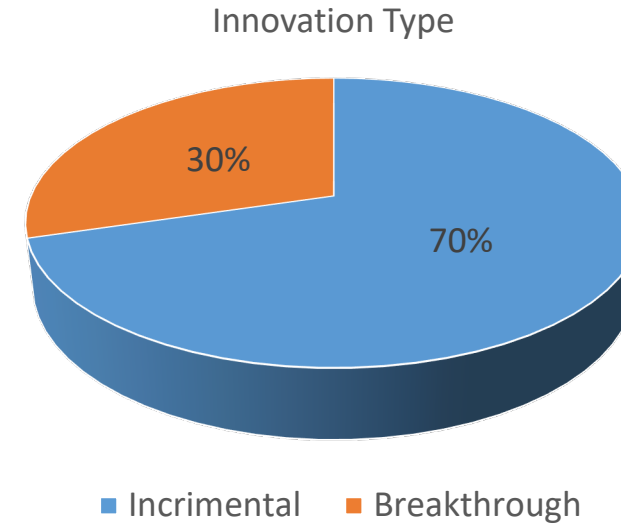
500
Staff Engaged with Innovation 

80
External Collaborations 

60
Staff Working on Innovation Projects 



■ Pipeline ■ Cancelled ■ Completed
■ Subsumed ■ On Hold ■ In Progress



Links to further information on our Innovation Projects:

- [Innovation to Deliver the Electricity Network for a Clean Electric Future](#)
- [Future Customer Pillar - Project Reports](#)
- [Climate Action Pillar - Project Reports](#)
- [Network Resilience Pillar - Project Reports](#)

18 Month Innovation Programme

The following three slides gives an overview of our 18 Month Innovation Programme. This programme aligns with ESB Networks strategic objectives, our PR5 objectives and it supports our commitment to the Climate Action Plan targets. The Innovation Programme is made up of three 18 Month Plans, a plan for the project portfolio under each of our Innovation Pillars: Future Customer, Climate Action and Network Resilience.

Future Customer Project Portfolio – 18 Month Plan

PROJECT TITLE	IT	2022		2023			
		Q3	Q4	Q1	Q2	Q3	Q4
Dingle Electrification Project (completed Q2 22)	B	▶					
+CityXChange	B	▶ Q4 '23					
MV Standard Modules – MV EGIP Generation & EV Charging Hub Connections	I	▶ Q4 '23					
Developing 400MHz Spectrum Use for Smart Grid Applications	I	▶ Q4 '24					
Optimal Heat Pump Scheduling to Improve Hosting Capacity of Distribution Networks for DERs	B			▶ Q4 '24			
REACT - Island energy Self-Sustainability	I	▶ Q2 '23					
AI Audit Application for Smart Meter Installations	B	▶ Q1 '24					
International Community for Local Smart Grids (ICLSG)	B		▶ Q24'27				
Collaboration & Research Partner Opportunities/Public Calls/EU Programmes	I/B/R	▶					

IT = Innovation Type
 I = Incremental
 B = Breakthrough
 R = Radical

▶ Active Projects
 ▶ Collaboration Opportunities


Link to further information on our Innovation Projects:
[Section 3 in Innovation to Deliver the Electricity Network for a Clean Electric Future](#)

Climate Action Project Portfolio – 18 Month Plan

PROJECT TITLE	IT	2022		2023			
		Q3	Q4	Q1	Q2	Q3	Q4
Introduction of MV/LV Tap-Changing Transformers	I	Active Projects (Green bar) Q3 '23					
Introduction of Alternatives to Creosote Wood Poles	B	Active Projects (Green bar) Q4 '25					
Introduction of Sidewalk Transformers	I	Active Projects (Green bar) Q4 '23					
Tesselo - LiveEO Vegetation Survey System (Complete 22)	B	Active Projects (Green bar) Q3 '22					
Wildlife OHL Contact Prevention	I	Active Projects (Green bar) Q4 '23					
MV Standard Modules –EV Charging Infrastructure Connections	I	Active Projects (Green bar) Q4 '23					
Investigate Statistical Contributions from Renewable Generation (F-Factor)		Active Projects (Green bar) Q1 '24					
E-Fleet – Electrification and Decarbonising our Fleet of Yellow Vans	I	Active Projects (Green bar) Q4 '25					
Charge Fleet – Charging Solutions for Electrification of Our Fleet & Transport	B	Active Projects (Green bar) Q4 '25					
Collaboration & Research Partner Opportunities/Public Calls/EU Programmes	I/B/R	Collaboration Opportunities (Yellow bar)					

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 Active Projects

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Link to further information on our Innovation Projects:


[Section 3 in Innovation to Deliver the Electricity Network for a Clean Electric Future](#)

Network Resilience Project Portfolio – 18 Month Plan

PROJECT TITLE	IT	2022		2023				
		Q3	Q4	Q1	Q2	Q3	Q4	
Inspection of OHLs Using Drones and Image Processing Analytics	I	Active Projects						Q4 '25
Gridvision AI – Condition assessment of tower corrosion	B	Active Projects						Q4 '23
AI Synthetic analysis of 110kv composite insulators	B	Active Projects						Q1 '24
Voltage Allocation for the MV/LV Distribution Network	I			Active Projects				Q2'24
New Core and Aggregation IP Network	I	Active Projects						Q4 '22
Weather Forecasting and Network Damage Prediction	I	Active Projects						Q4 '22
Development of Dynamic Line Ratings	I	Active Projects						Q4 '25
HV Stations Health Index (Complete)	I	Active Projects						Q4 '22
Novel Use of Drone Technology and Artificial Intelligence for Fault Location and Line Patrolling	I	Active Projects						Q4 '23
Leveraging Enhanced LV Monitoring and Data Analytics to Optimise Targeted Network Reinforcement (complete 22)	I	Active Projects						Q4 '22
Collaboration & Research Partner Opportunities/Public Calls/EU Programmes	I/B/R	Collaboration Opportunities						

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