



# InnoEnergy Skills Institute

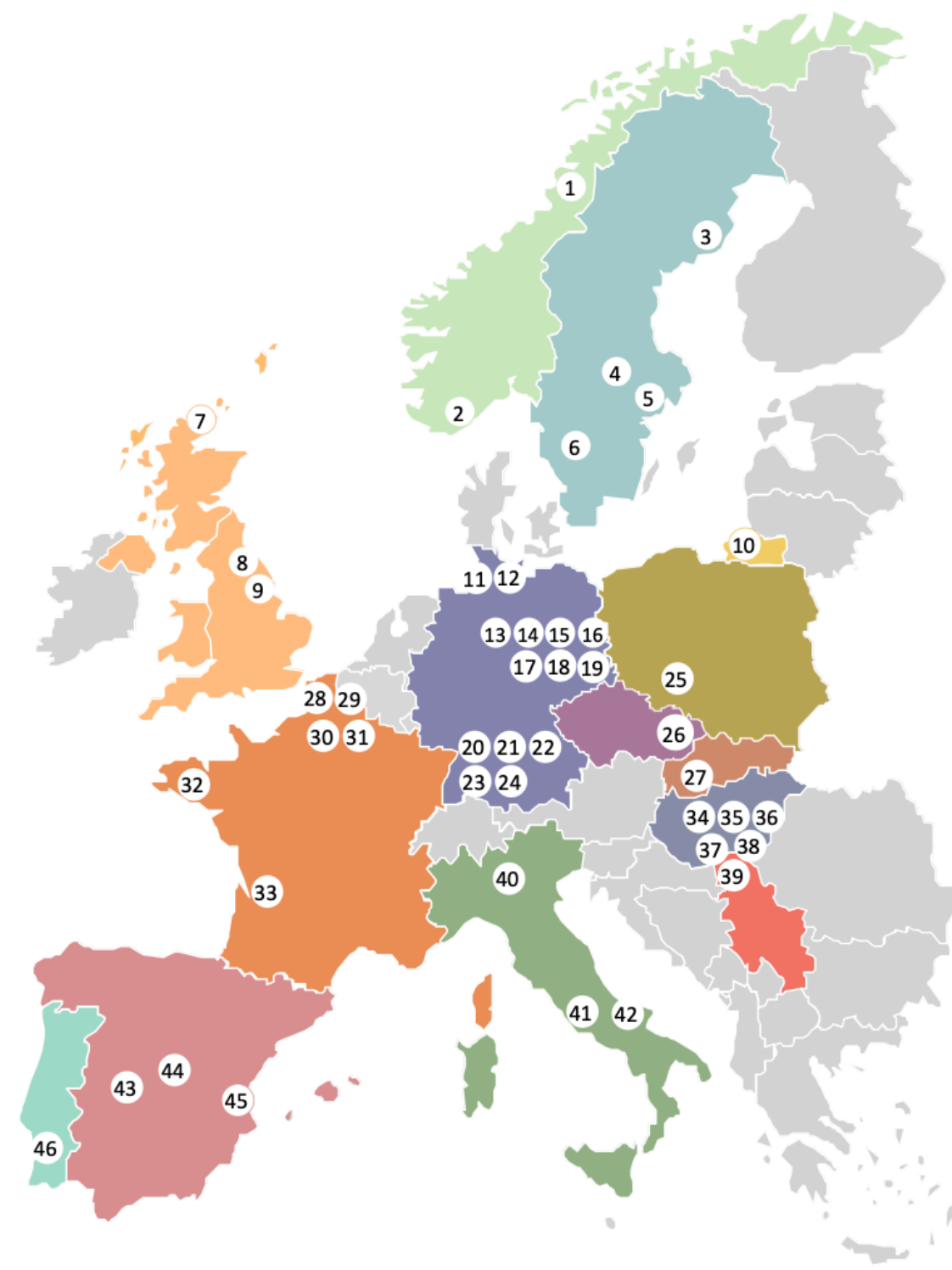
Transforming today's workforce for a sustainable tomorrow



26<sup>th</sup> October 2023 BUDAPEST

**Figure 1: Sites of battery cell production in Europe that are either in planning, under construction, or already in operation.**

<b>Norway</b>							
1		2024	0.375	29	43	4,500	1,500
2		2024		1	43	470	2,000
<b>Sweden</b>							
3		i. o.	16	60	60	4,000	2,500
4		2025			50	n. a.	1,000
5		i. o.	0.35		0.35	750	1,000
6		2025			50	2,900	3,000
<b>Great Britain</b>							
7		i. o.	0.1	0.5	0.5	n. a.	215
8		i. o.	1.9	12	35	1,185	1,650
9		n. a.			30	2,960	3,000
<b>Russian Federation</b>							
10		2026		3	12	n. a.	2,000
<b>Germany</b>							
11		i. o.	1.5			n. a.	n. a.
12		2026			60	n. a.	3,000
13		2023		3.5	18	n. a.	n. a.
14		2025		20	40	2,000	2,500
15		n. a.			21	n. a.	n. a.
16		n. a.			n. a.	5,000	2,000
17		i. o.	8	14	100	1,800	2,000
18		i. o.	0.5			n. a.	n. a.
19		2025		16	16	n. a.	n. a.
20		2027		6	24	1,700	2,000
21		2025		13.4	40	2,168	2,000
22		i. o.	0.5	1	4	48	n. a.
23		2024		0.1	1	n. a.	n. a.
24		2026			2	1,000	500
<b>Poland</b>							
25		i. o.	70	90	115	2,800	1,800
<b>Czech Republic</b>							
26		i. o.	0.2	1.2	15	38	250



Start of operations  
 Capacity (GWh/a) Available / Build-up (Planning 1st phase) / Maximum  
 Investments in million EUR  
 Jobs  
*For companies without assigned number, the final location within a specific country or within Europe has not been announced yet.*

<b>Slovakia</b>							
27		2026	0.045	4	10	100	150
<b>France</b>							
28		2025			50	1,600	1,200
29		2026			48	5,200	3,000
30		2023		13	40	2,600	1,700
31		2027		9	30	800	1,200
32		i. o.	0.5	1	1	n. a.	n. a.
33		2021	2	2	0.2	200	n. a.
<b>Hungary</b>							
34		i. o.	18		18	1,500	1,410
35		i. o.	40		40	n. a.	n. a.
36		n. a.			100	7,340	n. a.
37		2024		30	30	1,980	2,500
38					28	1000	1000
<b>Serbia</b>							
39		2026			48	n. a.	n. a.
<b>Italy</b>							
40		2026			40	2,000	1,800
41		2025			45	4,000	3,000
42		i. o.	0.35	8	8.3	505	n. a.
<b>Spain</b>							
43		2025		10	30	n. a.	3,000
44		i. o.	0.3	2	10	80	150
45		2026		40	60	3,500	3,000
<b>Portugal</b>							
46		2025		15	45	n. a.	n. a.
<b>Europe</b>							
		2025			6	2,000	n. a.
		n. a.			140	n. a.	n. a.
		2025			32	n. a.	n. a.
	<b>Σ</b>		<b>160</b>	<b>405</b>	<b>1,639</b>		

Source: Company announcements, own depiction.

Decarbonization: A big opportunity triggering an unprecedented race for talent and skills globally

According to the World Economic Forum Future of Jobs Report 2023, the two main drivers of job growth are the Green Transition and Technology.

# Three key drivers of job change



Green transition



Technology



Economic outlook

Impact



Driving job growth



Driving job decline

# Workforce transformation is a challenge

The transition to net zero will require retraining up to 18 million workers around the world

800,000 workers will need to be retrained or upskilled by 2025 in EU battery sector

Renewable energy sector employment will need to grow from 2020's 12 million figure to 38 million by 2030

Between 2015 and 2030, the amount of solar PV jobs is expected to quadruple





## EUROPEAN VALUE CHAIN



**Our goal:** Build a strong pan-European battery industry to capture a new market worth 250B€/year in 2025.

## A UNIQUE OPEN ECOSYSTEM



**An independent meeting place:**  
More than **800 members** throughout the value chain have joined EBA250. The members come from the industrial, academic and financial worlds, from mining to recycling.

## INDUSTRY-DRIVEN



**Industry and decision makers** at EU and **Member State** level to boost the growth of a European battery ecosystem. **European Commission**, investment institutions and key innovation and **academia stakeholders**

**EUROPEAN  
BATTERY  
ALLIANCE**

**EBA250**



Since 2017 → 2022- a blueprint for industrial alliances



“And this is my final point. Building new and agile alliances where the public sector joins forces with industry. This kind of cooperation is already proving to be incredibly powerful in some sectors. For example, **our Battery Alliance makes a very good story**. Europe will need more and more batteries, to reach our goal of climate neutrality. The European market for batteries will be worth EUR 250 billion already in 2025. But Europe still relies massively on batteries that are entirely or partially made abroad, often with environmental standards that lack our ambition.

**This is where the European Battery Alliance comes into play. [...] This is how Europe should always work. We should not just work for our industry, but with our industry.”**

*President of the European Commission Ursula von der Leyen speech at EU Industry Days 2021*



“The industry estimates that by 2025, this growing skills shortage could amount to some 800,000 jobs across the entire battery value chain.

We need to shift to training on the ground – and therefore, to roll out national reskilling and upskilling programmes across the Member States. [...]

To facilitate, I have tasked EIT InnoEnergy to team up with interested Member States to help them prepare their country-specific project proposals. InnoEnergy will soon launch a so-called InnoEnergy Skills Institute, developing curricula and training content based on the industry's skills.”

EU Vice President, Maroš Šefčovič



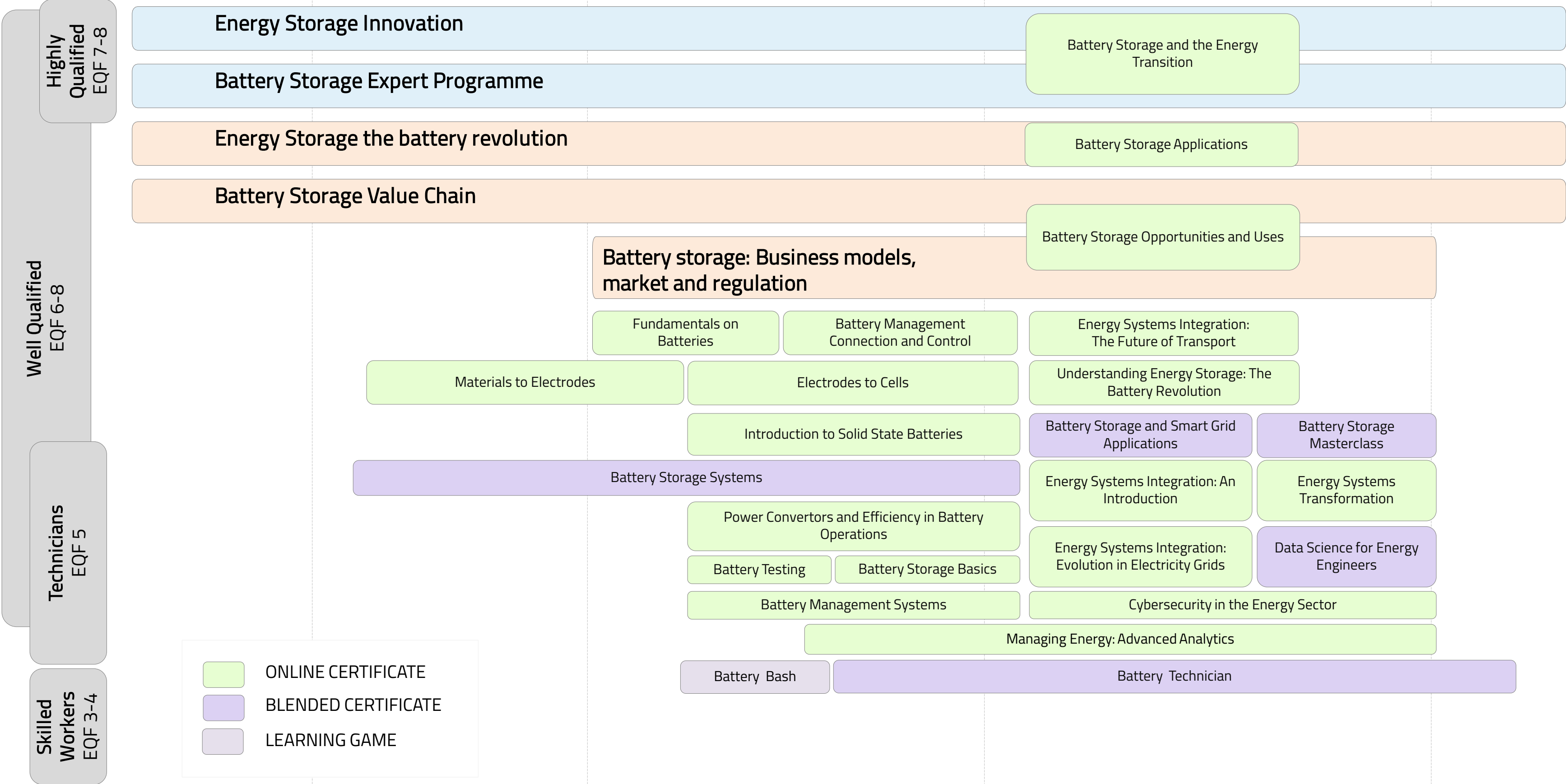
# At InnoEnergy Skills Institute we are transforming skills for a sustainable tomorrow

Our purpose is to equip the global workforce with the skills required to create a sustainable economy by distilling our knowledge into know-how to deliver best-in-class intelligence and learning solutions.



# InnoEnergy Skills Current Portfolio Overview

Raw Materials	Active Materials	Battery Cells and Battery Packs	Applications	Recycling/ 2nd life
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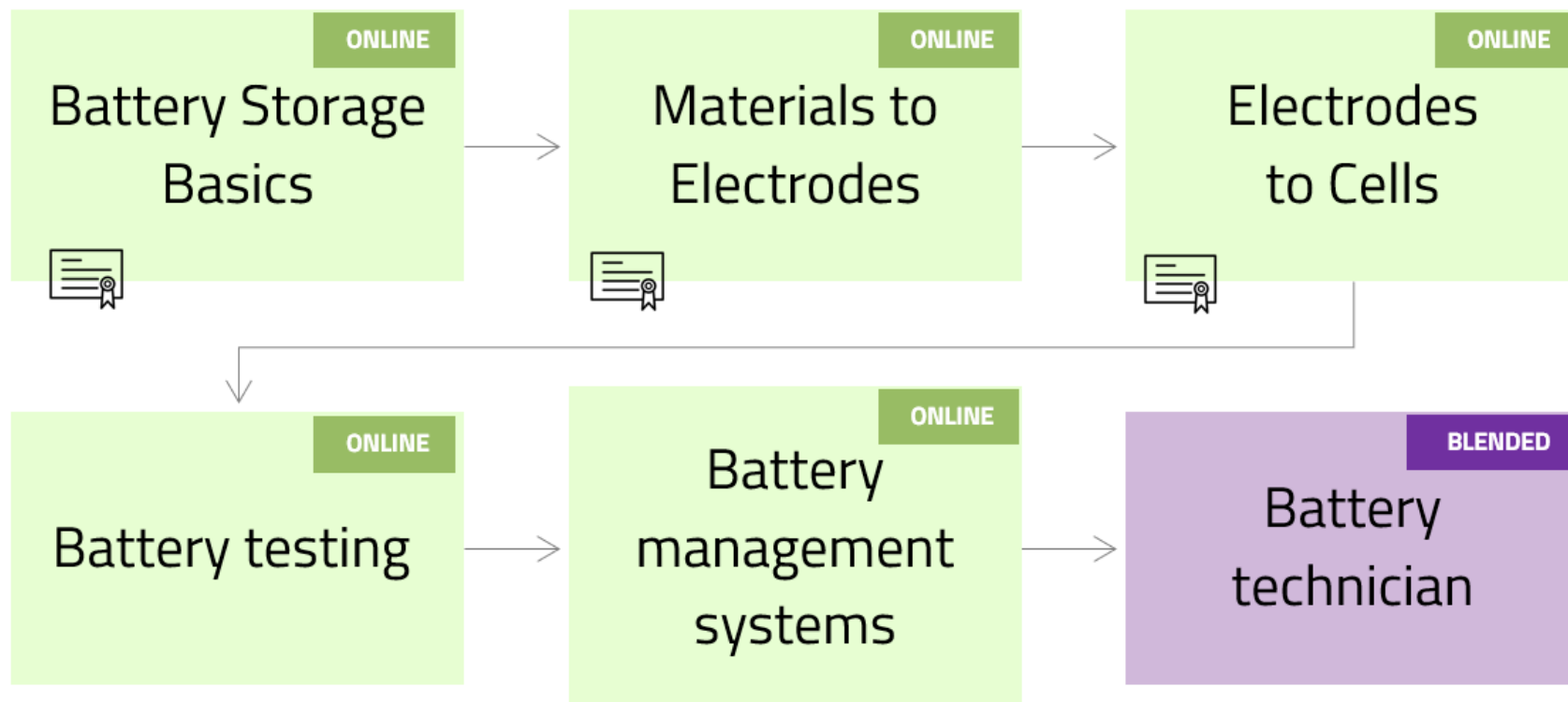


# InnoEnergy Skills Current Portfolio Overview



## Process Technician:

Sample Learning Pathway with our Current Content



- Ability to work in a dry room and/or clean room environment
- Understanding the chemistry of the produced battery, its properties, and how it operates ● ●
- Understanding of cell manufacturing process steps (even if the function is focussed on a particular step) ● ●
- Understanding battery performance metrics and test methods ● ● ●
- Understanding battery manufacturing equipment ●
- Knowledge of mechanical processes and general machinery (e.g., welding, drill press, etc.)
- Ability to read and interpret technical documentation and mechanical drawings ●
- Ability to troubleshoot at certain process steps (role focus) and different components (e.g., pneumatic systems, belts, conveyors, vacuum systems, etc.)
- Ability to perform preventive and reactive mechanical maintenance
- Ability to use measurement tools (e.g., gauges, micrometres, callipers, etc.) ●
- Ability to develop accurate and clear technical documentation

# InnoEnergy Skills Institute's online learning library built to adapt to the changing needs of global workforce

Core offering

within courses of

to acquire

to provide solutions for



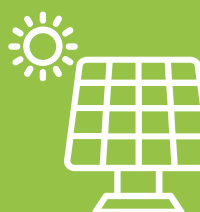
Online/ On-demand  
Learning Library



Batteries



Hydrogen



PV



General



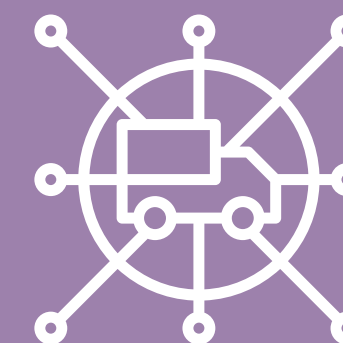
Knowledge-based  
Certification



Direct to Industry



Governments



Distributors



Universities



# A holistic solution for successful workforce transformation

## EXTENSIVE TRAINING LIBRARY

- 400 learning hours existing
- 30+ certificates available
- White & blue collar
- LEGO library approach

## VALUE ADDED SERVICES

- Skills Compass - skills and job intelligence services
- Content development and adaptation
- Learning Management

## SKILLS CERTIFICATION

- EIT Label for courses
- European Digital Credentials
- ECQA certificates

# Skills Compass

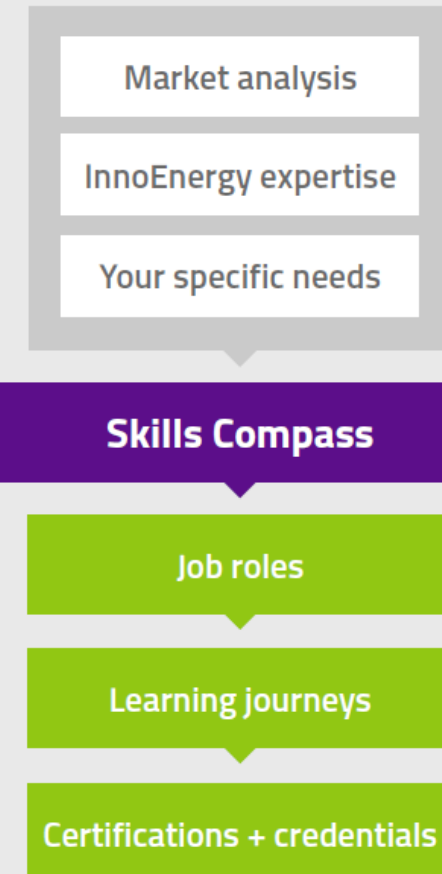
Skills Compass is a powerful tool to help you accurately assess your needs when it comes to skills of your employees.

Our experts offer **customised and specialised recommendations** that highlight the areas your team should focus on to upskill effectively.



## How does it work?

- 1** Tell us about the learning and development needs in your business
- 2** Our experts use a combination of market analysis and automated software to identify the specific skills needed
- 3** We'll outline and create skills matrices for job profiles you need
- 4** You'll receive tailored learning journeys that lead to certifications and credentials



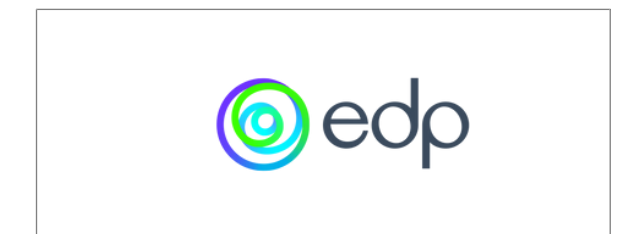
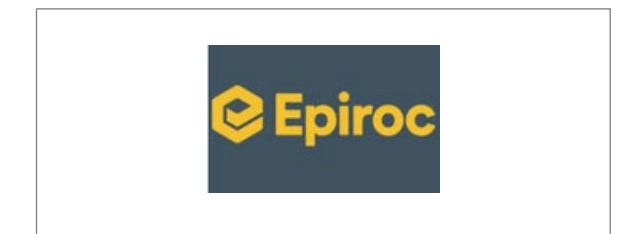
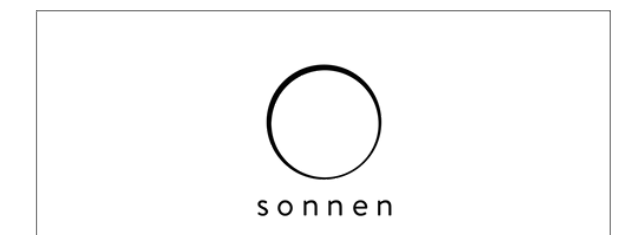
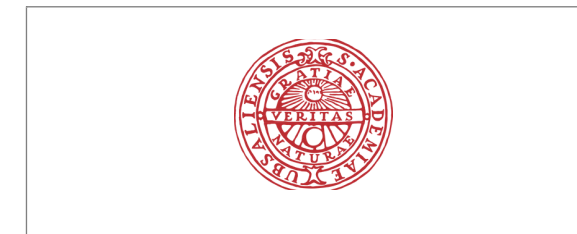
### Your benefits

- ✓ Rapidly identify required skills and knowledge for crucial job profiles.
- ✓ Efficiently determine the profiles to hire and train based on specific skill sets.
- ✓ Knowledge on which talent pools to access and from which industries.
- ✓ Gain a competitive edge over similar companies.

Leave the upskilling and reskilling process to us, while you focus on driving your business forward.

# An Unrivalled Team of Subject Matter Experts and Instructors

Our course material is developed and delivered by an unrivalled team of industry subject matter experts on sustainability, decarbonization, and green technologies from the world's leading universities and organizations.



At InnoEnergy Skills Institute, we recognize the importance of strategic partnerships and in advancing our mission.

We've partnered with NIIT, ManpowerGroup, and SAE to expand our reach and impact.

We believe that leveraging ecosystems is key to addressing skills gaps.

We are committed to adapting and applying the right approach on a global scale.

Hungary – in partnership with Trigo Group



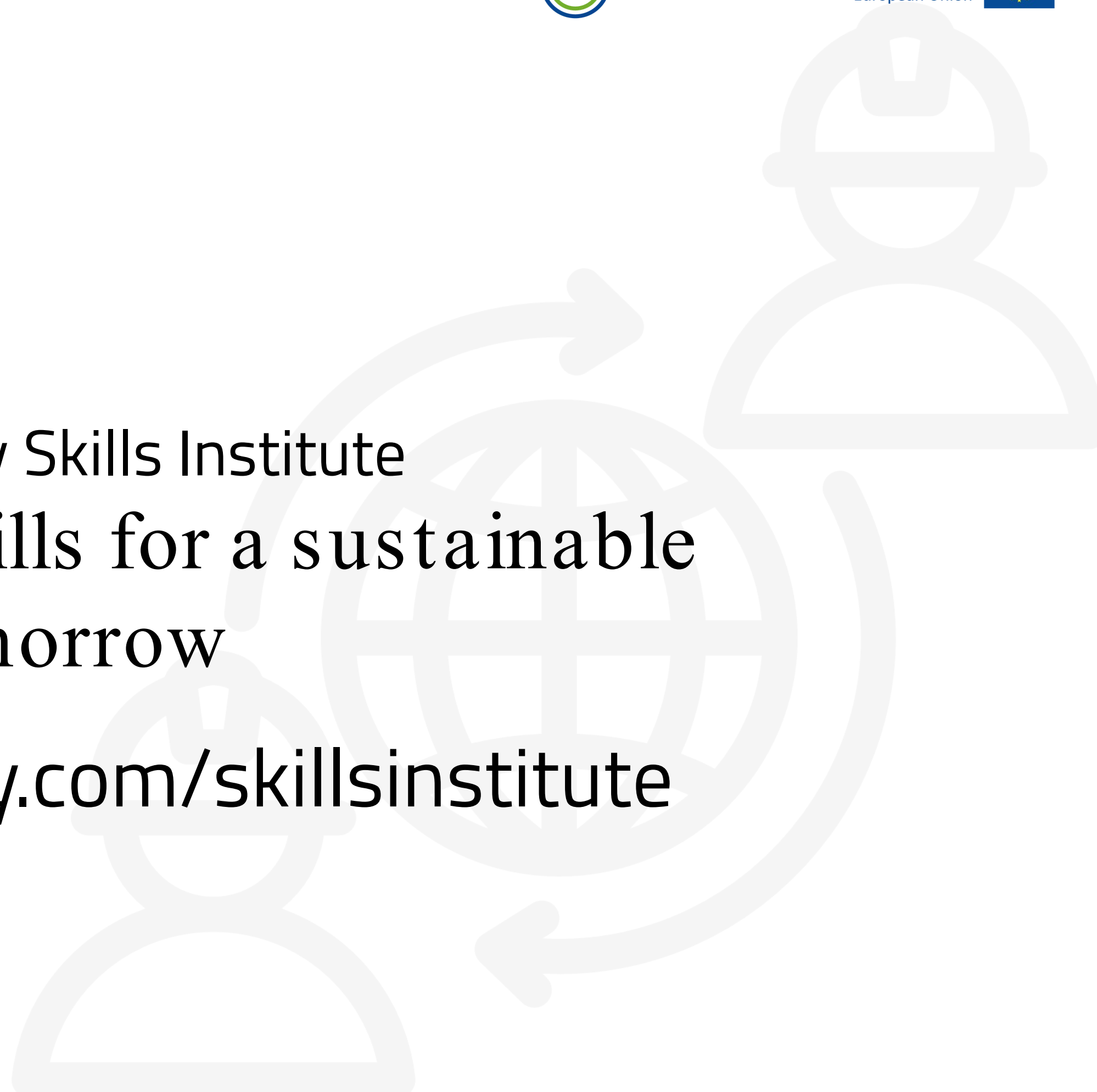
ManpowerGroup®





InnoEnergy Skills Institute  
Transforming skills for a sustainable  
tomorrow

[www.innoenergy.com/skillsinstitute](http://www.innoenergy.com/skillsinstitute)





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InnoEnergy Skills Institute  
**Fruzsina Csonka**

[Fruzsina.csonka@innoenergy.com](mailto:Fruzsina.csonka@innoenergy.com)

+48 603 205 501