

Capital Market Update August 2023

# Gaining *traction!*

Our journey to volume manufacturing  
and rapid deployment



Shell, 10 MW, Wesseling, Germany



CAPITAL MARKET UPDATE AUG'23

- 1. MARKET UPDATE**
- 2. FULL YEAR RESULTS**
- 3. UPDATE ON 12-MONTH PLAN**
- 4. NEW PRODUCT RELEASE**
- 5. OUTLOOK**

# Market environment



- Climate, decarbonisation and energy independence imperatives have **continued to fuel the projected hydrogen demand**. The synchronised build-up of a worldwide hydrogen economy is underway at ambitious speed, opening **vast demand opportunities**
- The **electrolyser market is still immature** though, with only few technologies credible for commercial deployment, and many companies not yet tested in the market
- **ITM now has the industry experience and capabilities** to identify and execute the **real projects**
- **We can conquer this market** through:
  - › **Robust and commercially proven products**
  - › **Reference plants** that give customers the confidence to invest into large-scale projects
  - › **Credibility to manufacture at the necessary scale, quality, and on time**, which requires (semi-)automation, strong execution partners, and close collaboration with leading suppliers
- Today, **ITM is the only PEM electrolyser company** in the world **entrusted to deliver several commercial 100MW plants**. We are supplying into **projects for industry leaders** such as Linde, RWE, Shell, Yara, Infineon and others, who have ambitious plans for the future
- Due to recent energy prices, inflation and slow funding decisions, some customers have delayed their final investment decisions
- *As such, the big demand spike is yet to come, and **ITM will be ready!***





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## 2. FULL YEAR RESULTS

# Spotlight: Revenue recognition



	ORDER	DESIGN SIGN-OFF & PROCUREMENT	MANUFACTURE	FAT	SHIPPING	INSTALLATION & COMMISSIONING	SAT
CASH INFLOWS							
REVENUE							

- **Revenue** is recognised on **completion of obligations** which is typically “testing of a module”
- Typically, this is on **Factory Acceptance Test (FAT)**
- However, where there are split deliveries, revenue will lag against work completed for projects, with **dependency** on wider plant installation, meaning **Site Acceptance Test (SAT)**

# Summary financials FY23



## Recap (from January)

- Historically, ITM had chased an aggressive expansion strategy, based on technology leadership
- As such, ITM underestimated the competencies and capabilities required to transition from an R&D company to a volume manufacturer

## Update

- We are halfway through our 12-month plan to address shortcomings experienced
- Operationally this is leading to tangible improvements with a quality-first approach to all activities
- Full effect not yet visible in the FY23 results, but first positive impact seen on cash and revenue

	FY23 £m	Guidance Jan'23 £m
<b>Cash</b>	<b>283</b>	<b>245-270</b>
<b>Revenue</b>	<b>5.2</b>	<b>2.0</b>
Of Which:		
Product	4.1	
Prototyping	0.6	
Other	0.5	
<b>Adjusted EBITDA</b>	<b>(94.2)</b>	<b>(85-95)</b>

### Reasons for project and inventory losses unchanged from Jan update. Key drivers recap:

- › Support of legacy products
- › No design freezes
- › Acceleration measures to mitigate delays
- › More conservative warranty provisions
- › Inflation and energy cost

# Cash flow in period



Cash flow	£m
<b>Opening balance</b>	<b>365.9</b>
Adjusted EBITDA	(94.2)
Movement in provisions	31.2
<b>Subtotal: EBITDA cash movement</b>	<b>(63.0)</b>
Increase in inventories	(26.6)
Working capital improvements (receivables and payables)	17.5
Investment into factory automation and testing capacity	(8.6)
Investment into product development	(6.6)
Other	4.0
<b>Movement</b>	<b>(83.3)</b>
<b>Closing balance</b>	<b>282.6</b>

## Movements in provisions

› Warranty (in-field)	£0.7m
› Warranty (contracted) <sup>2</sup>	£9.8m
› Contract loss provision	£20.3m
› Other	£0.4m

Warranty provisions have been made based on old product generation field data and applying best estimates to future product that has not yet been deployed for extended durations in the field.

Contract costs for commercial deployments previously underestimated.

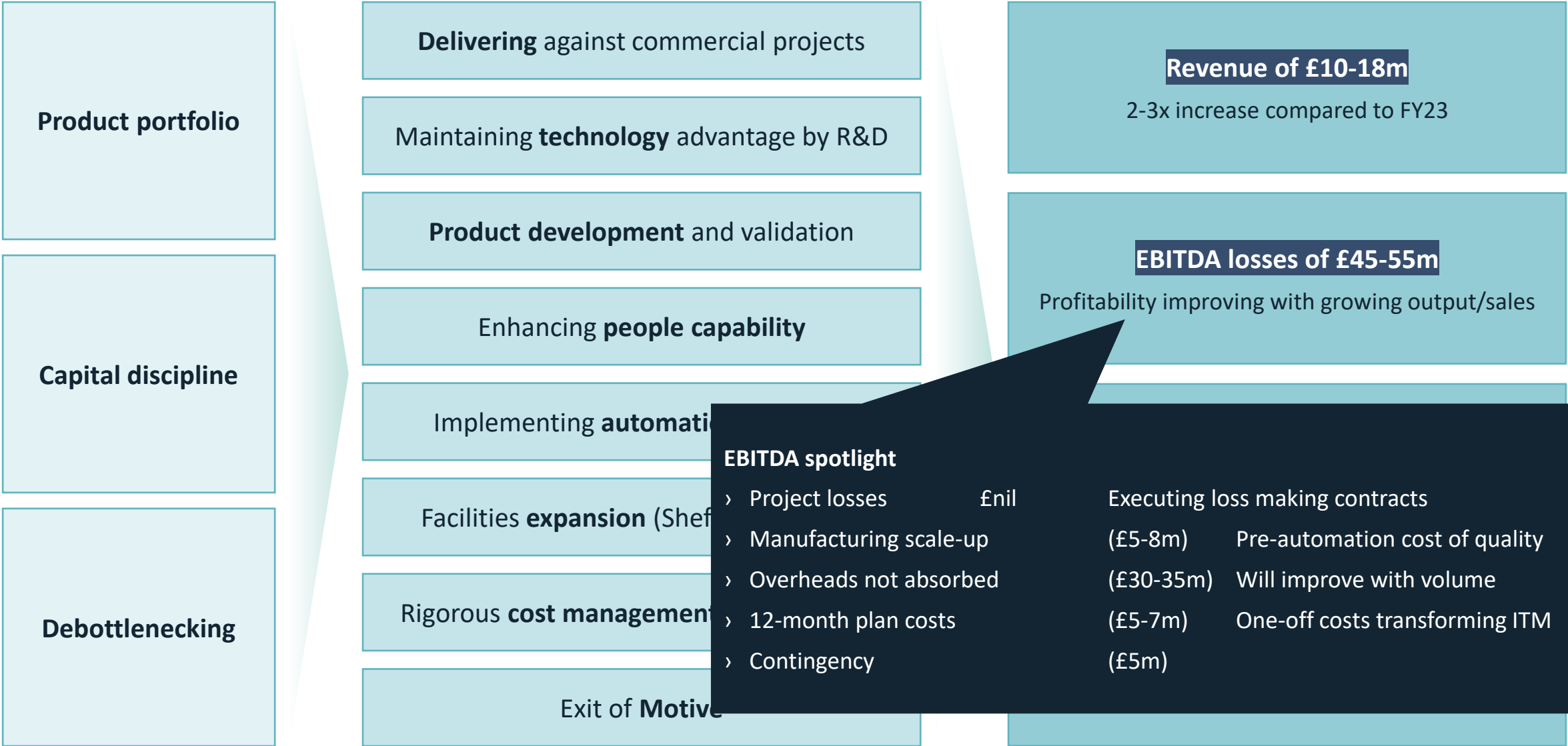
Including WIP<sup>1</sup>, reflecting progress on projects not yet recognised as revenue

First effect of 12-month plan's capital discipline efforts

Predominantly interest received

1) Work In Progress; 2) Warranty provisions for contracted projects appear in contract loss provision

# FY24 guidance: Driving for capability





# FY24 guidance: Driving for capability



**Product portfolio**

**Delivering** against commercial projects

Maintaining **technology** advantage by R&D

**Product development** and validation

Enhancing **people capability**

Implementing **automation** roadmap

Facilities **expansion** (Sheffield, Linden)

Rigorous **cost management** and discipline

Exit of **Motive**

**Capital discipline**

**Revenue of £10-18m**

2-3x increase compared to FY23

**EBITDA losses of £45-55m**

Profitability improving with growing output/sales

**CAPEX £35-45m**

Investments into expansion, automation, products

**Cash at year end £175-200m**

Strong balance sheet positioned for growth

**Debottlenecking**

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### **3. UPDATE ON 12-MONTH PLAN**

## Recap: Our 12-month plan



As ITM is transitioning to a volume manufacturer, we are now **6 months into our 12-month plan to solidify our foundations** and have made **substantial progress** in our three focus areas:

- 1 Concentrate on a** standardised **core product suite** for repeatable and reliable **volume manufacturing**.
- 2 Improve capital discipline** by a stringent **cost reduction programme** in the short-term, and by introducing professional processes for the future.
- 3 Debottleneck** and **scale** fabrication and testing, and invest into **incremental automation**.

In parallel, we are **delivering** against our project commitments, thereby completing **important reference plants**.



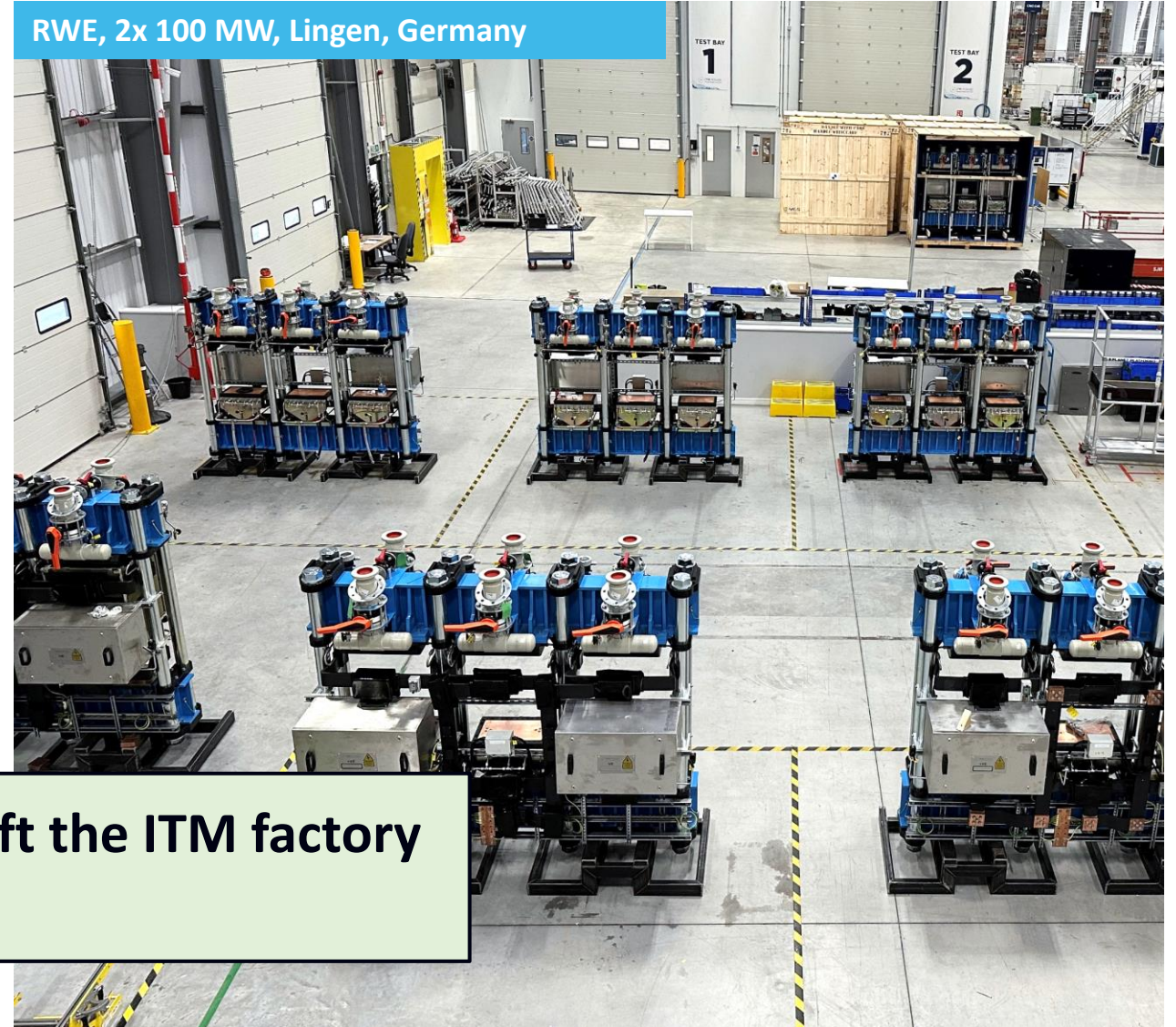
# Project impressions



Yara, 24 MW, Porsgrunn, Norway



RWE, 2x 100 MW, Lingen, Germany



**In the last 6 months, more products have left the ITM factory than in the previous 22 years combined.**



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### **3. UPDATE ON 12-MONTH PLAN**

⇒ PRODUCTS



# Product portfolio substantially narrowed



Product	Description
<del>Hpac</del>	<del>LAM 15bar stack, 5 KW, Cabinet</del>
<del>LEP 1 Container 20 bar</del>	<del>LEP 20bar stack, 100 KW, Plug &amp; Play</del>
<del>LEP 1 Container 30 bar</del>	<del>LEP 30bar stack, 100 KW, Plug &amp; Play</del>
<del>LEP 3 Container 20 bar</del>	<del>LEP 20bar stack, 300 KW, Plug &amp; Play</del>
<del>LEP 5 Container 30 bar</del>	<del>LEP 30bar stack, 1 MW, Plug &amp; Play</del>
<del>LEP 4 Distributed 30 bar</del>	<del>LEP 30bar stack, 700 KW, Building integrated</del>
<del>1MEP20EU Container</del>	<del>MEP 20bar stack, 700 KW, Plug &amp; Play</del>
<del>2MEP20EU Container</del>	<del>MEP 20bar stack, 1.4 MW, Plug &amp; Play</del>
<del>3MEP10EU Container</del>	<del>MEP 20bar stack at 10bar H2, 2MW, Plug &amp; Play</del>
<del>3MEP20EU Container</del>	<del>MEP 20bar stack, 2MW, Plug &amp; Play</del>
<del>3MEP30UKCA Container</del>	<del>MEP 30bar stack, 2MW, Plug &amp; Play</del>
<del>3MEP20 Cube</del>	<del>MEP 20bar stack, 2MW, Stack Module</del>
<b>3MEP30 Cube</b>	MEP 30bar stack, 2MW, Stack Module
<b>3MEP30 Container</b>	MEP 30bar stack, 2MW, Plug & Play
<b>3MEP30 Stack Skid</b>	MEP 30bar stack, 2MW, Stack & Skid
<b>3MEP30 Module</b>	Repeatable standardised building blocks for scale-up
<b>3GEP30 Stack Skid</b>	GEP 30bar stack, Stack & Skid

## Legacy products:

- › The services we provided to support older generation technologies **were disruptive** to our engineering and manufacturing processes and **had become too costly**.

### Actions:

- Product development and ongoing design improvement work discontinued
- Marketing and selling stopped
- ◐ Remaining contractual commitments and warranty obligations in fulfilment
- ◐ Aftersales only selectively for later product generations – to avoid distracting the organisation

## Focus products

Paused

# Products rationale

## Stack Skid



### CORE PRODUCT

- 2MW per skid
- 30 bar hydrogen pressure
- High performance
- Application agnostic
- Maximum value addition
- Repeat build, routine testing
- Increasing automation
- Strong technology pipeline



## Plug & Play Container

### FULLY INTEGRATED ELECTROLYSER

- 36kg/h & high purity
- Standalone automated operation
- Supplied with power conversion system
- >20MW in execution

## Cube

### PACKAGED STACK SKID

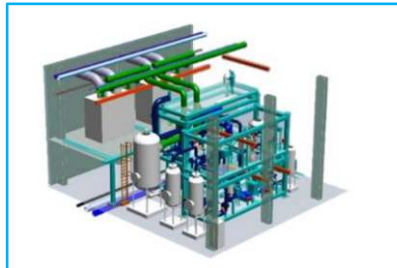
- 36kg/h per unit
- For integration into mid-sized plants
- >50MW in execution



## Modular Deployment

### CORE ELECTROLYSIS PROCESS UNIT

- 360kg/h per module
- Simplified EPC integration
- >200MW in execution



## Outlook

- Second generation under development
- Engaging with an assembly partner to support capacity growth

- Will be phased out in favour of modular deployment
- Learnings applied to modular deployment

- Defined core balance of plant
- Flexible execution model for large-scale projects

# Leading stack technology



ITM's MEP30 stack technology is the most advanced on the market today selected reasons:

- **Highest current density**, reducing footprint and cost
- **Leading conversion efficiency** at levelised current density, reducing operational cost
- **Lowest** reported **precious metal loading**, reducing cost

Metric	Unit	EU Target 2030 <sup>1</sup>	ITM Power 2023 <sup>2</sup>	Status
Current density	A/cm <sup>2</sup>	2.5	3.3	✓
Efficiency @2.5A/cm <sup>2</sup>	KWh/kg	50	50	✓
PGM use as catalysts	mg/W	0.4	0.4	✓

Strong R&D pipeline for further technology improvement



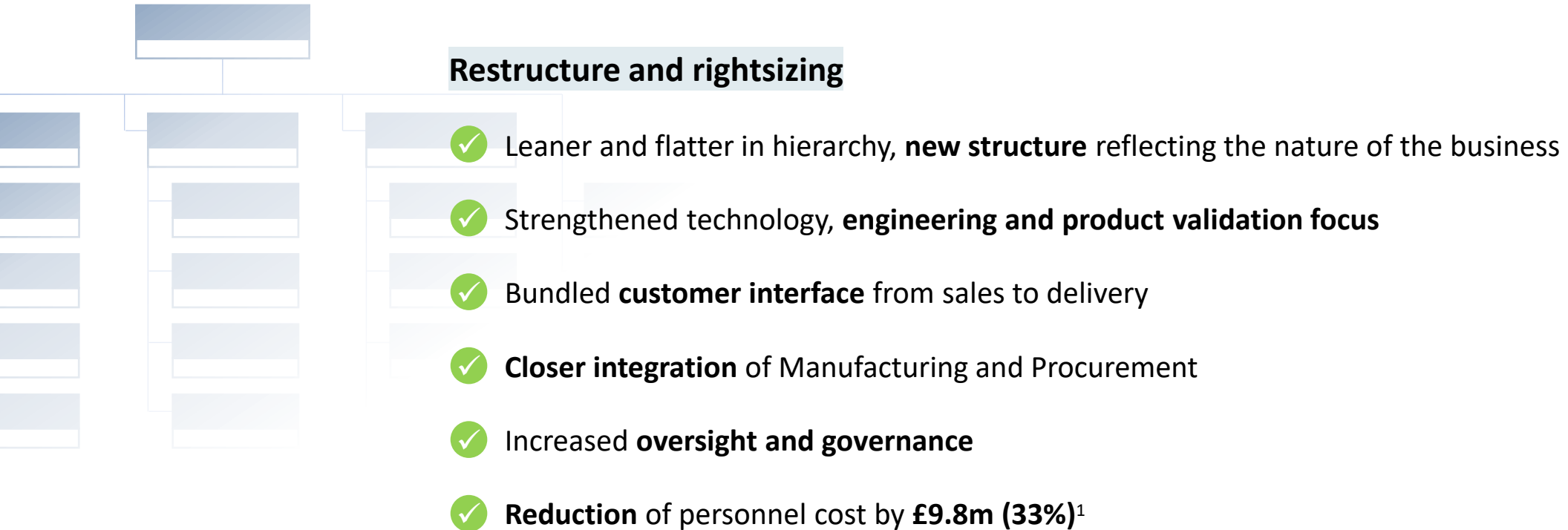
1) Fuel Cells and Hydrogen Joint Undertaking, Addendum to the Multi-Annual Work Plan 2014 to 2020

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### **3. UPDATE ON 12-MONTH PLAN**

⇒ CAPITAL DISCIPLINE

# Organisational refinement



1) Like-for-like before COL and capability development investments



# Solidifying our foundation (selected examples)



## Mitigation of future inventory losses

### Design

- Professionalise engineering (capabilities and processes)
- Introduce design freezes and stringent management of change
- Strengthen compliance and validation with veto/sign-off right to challenge engineering status
- Formal validation-based product (generation) release for sales, procurement and fabrication
- Introduce state-of-the-art calculation/simulation tools

### Sourcing

- Improve supplier audits and oversight incl. on-premise inspection and witness testing reflecting risk profile
- Strengthen standard T&Cs, incl. volume and specs flexibility, and back-to-back warranty with suppliers

### Fabrication and warehousing

- Enhance parts traceability from incoming to shipping
- Live quality over quantity mindset during build
- Improve implementation of and work to new ERP system

## Mitigation of future project cost overruns

### Product portfolio and sales governance

- Enhance discipline around selling standard products as opposed to customised solutions
- Comprehensive costing and pricing incl. realistic schedule and risk estimation
- Review contract terms, incl. liabilities, performance guarantees, warranty, etc

### Project governance

- Introduce stringent phase gate process strictly adhered to
- Strengthen accountability across the business, and reset project managers role profile and expectations
- Substantially improve quality of project cost and risk reporting
- Advance core project management processes and governance
- Improve contract change management

# Spotlight: Progress MEP30 stack production



## Improvements to stack build are having the desired effect:

- Design FMEA improvements to product
- Automation/semi-automation of various production steps, assembly aided by laser-scanning and advanced camera and sensor technology
- Stringent “Quality over Quantity” policy

## Higher pass rates are leading to:

- Lower (re-)testing costs
- Debottlenecking of test facilities
- Fewer interruptions to serial manufacturing (stack re-assembly)
- Higher predictability of production and project delivery schedule
- Reduced need for material storage

# Spotlight: Progress MEP30 stack production

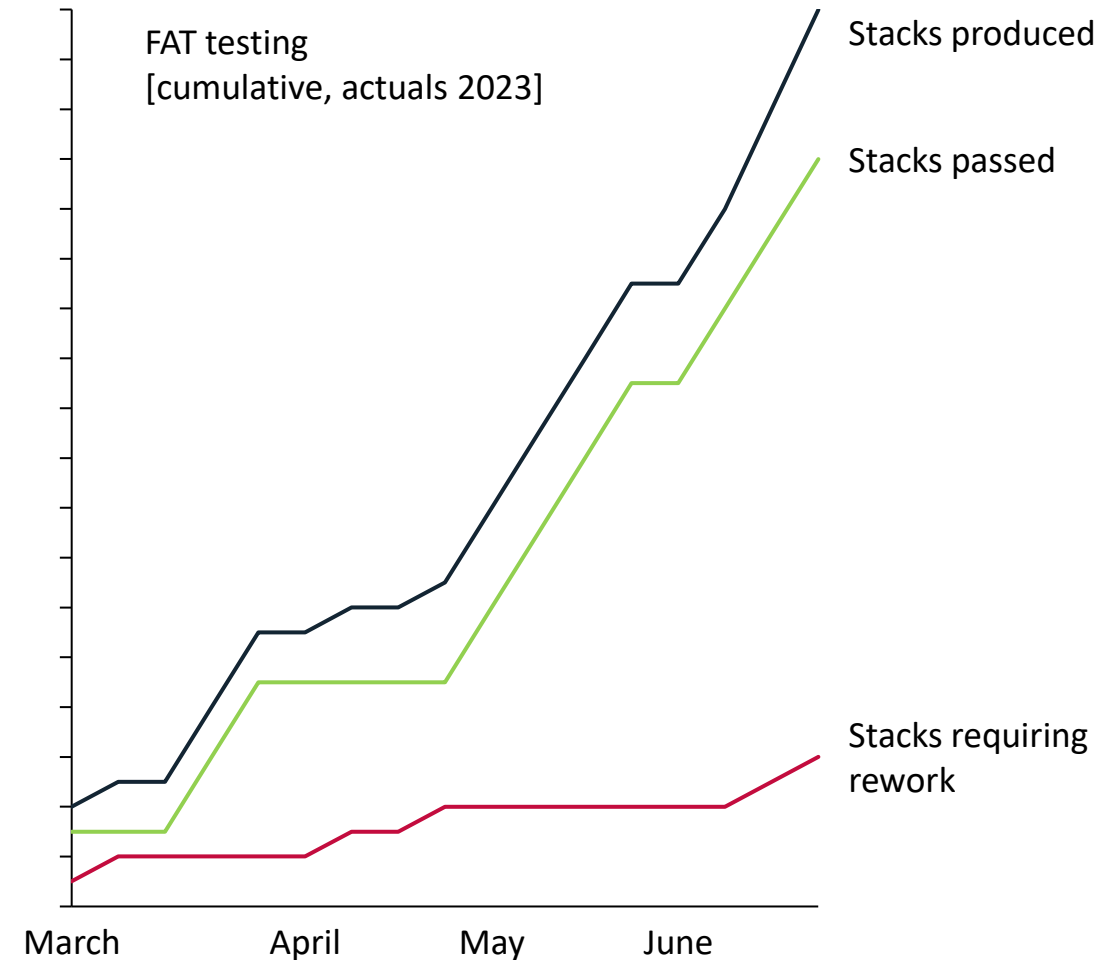


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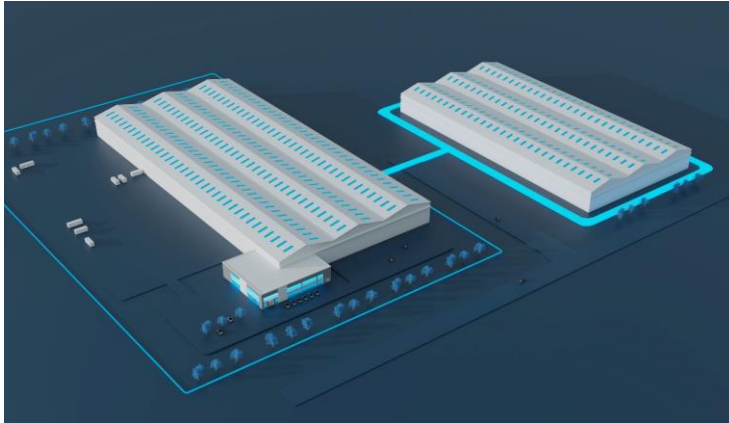
### **3. UPDATE ON 12-MONTH PLAN**

⇒ DEBOTTLENECKING/SCALING

# Facilities expansion



## Fabrication and R&D expansion



- › Expansion of Sheffield facilities well underway to make space for **R&D and product validation** incl. science labs and first-of-a-kind product testing facilities
- › Allows **improved factory layout** for stacks from an evolved to a highly optimised one
- › Also provides increased fabrication space for **higher stack volumes**
- › ITM to take over facilities in **Nov. 2023** for interior fit-out

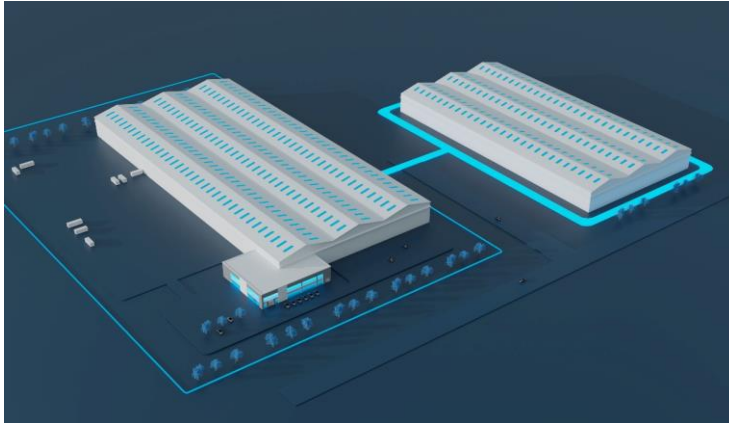




## Facilities expansion

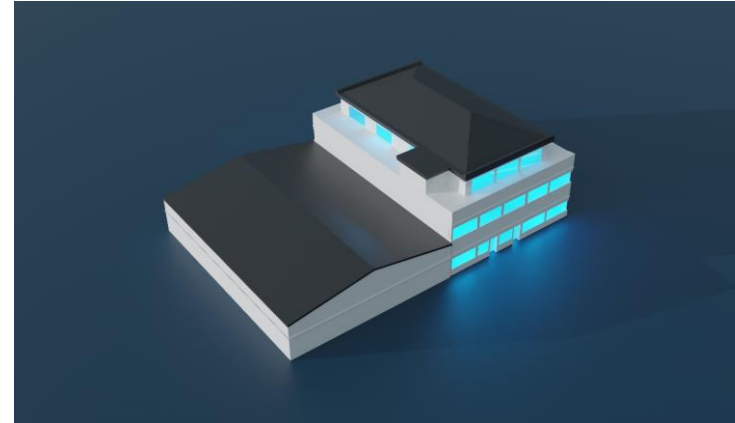


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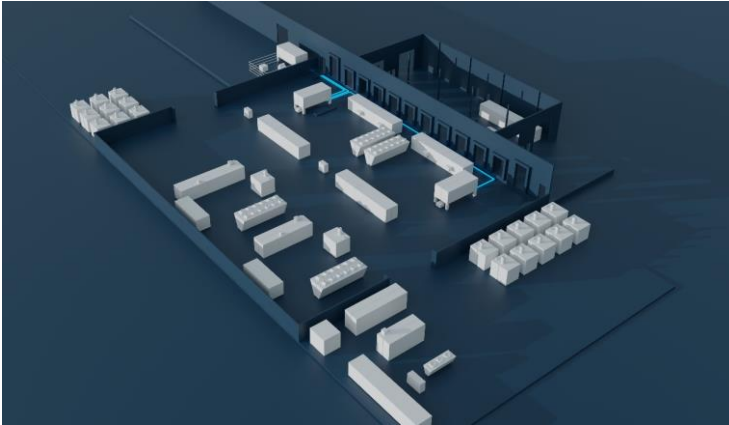
### ITM Power Germany



- › Located in Linden, **central in GER and EU**
- › Will host various business functions which are **enablers to ITM's accelerated growth**
- › **Main aftersales hub for Europe** with facilities to store and quickly deploy stacks
- › Gearing up for increasing **local content** creation in the EU
- › Official opening in **Oct. 2023**

# Testing and automation

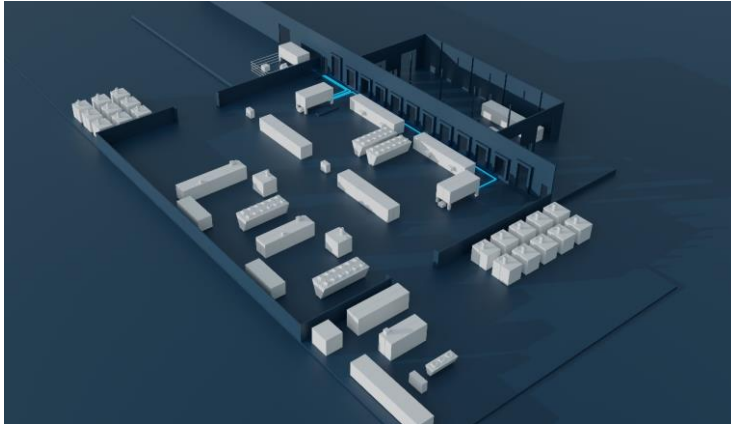
## Testing and power supply



- › Phased approach to **increase test bay** capacity to satisfy project needs; more than doubling in 12 months
- › **50% increased electricity supply** from 5 to 7.5 MVA as first step
- › Further **increase to 30 MVA already secured**; will be available in second half of 2024

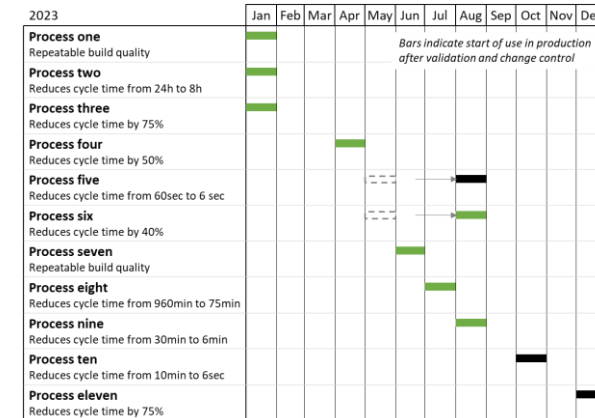
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## Fabrication automation



- › **Automation roadmap** in implementation, improvements affecting **cycle times and build quality**
- › Incremental deployment into live production after **robust validation**
- › Some supplier-driven delays experienced, but well managed by ITM team; overall **well on track**

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## 4. NEW PRODUCT RELEASE



POSEIDON



# Modular deployment



## POSEIDON module



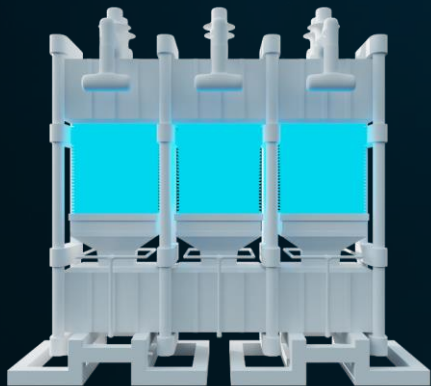


- › **Standardised 20 MW core electrolysis process module** with optimised footprint
- › **Replicable for scaling up**, suitable for **indoor and outdoor** installation
- › Consists of **skid-mounted units**, which can pre-fabricated and pre-tested
- › **Reduced deployment lead times** and **lower construction cost**
- › Engineered incorporating **real-world lessons learned** from commercial projects
- › Design ready for **integration into balance of plant**, enabling flexible execution work splits for **large-scale projects**



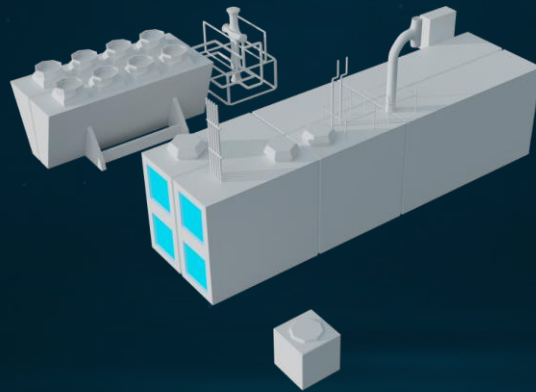
## TRIDENT

Leading PEM electrolyser  
stack technology



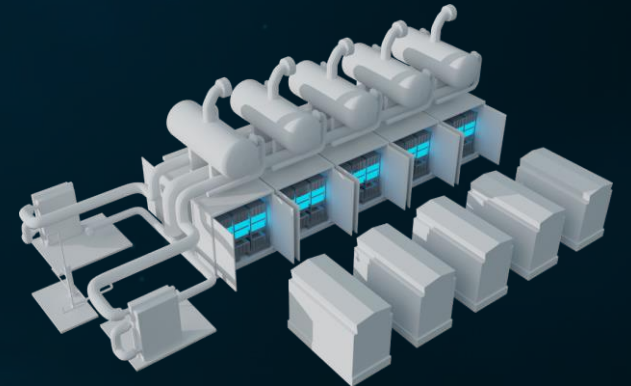
## NEPTUNE

2MW Plug & Play electrolyser for  
small to mid-size projects



## POSEIDON

Cutting-edge 20MW module for  
large-scale projects



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## 5. OUTLOOK

# Outlook

A decorative graphic on the left side of the slide featuring a stylized sun with rays and a large, fluffy cloud, both in light blue tones.

Today, ITM looks **very different** from ITM 6 months ago.

We are **well on track** to solidify our foundations and will focus on:

- › **Project delivery**
- › *Getting our house in order: second half of **12-month plan** implementation*
- › **Scaling** with existing and new commercial projects
- › Unlocking **new territories**

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**Thank you for your attention!**