



## **Assemblée Générale Ordinaire de Leclanché SA**

Présentation du CEO, Anil Srivastava

Yverdon-les-Bains, 4 mai 2016



# Leclanché in numbers

**100+ MWh**

opportunity through 2017 from identified projects in advanced stages of our pipeline

**> 100 patents**

covering our proprietary Lithium-ion technology, our manufacturing processes and our systems expertise

**100% growth**

revenue growth target for 2016

**\$18 billion**

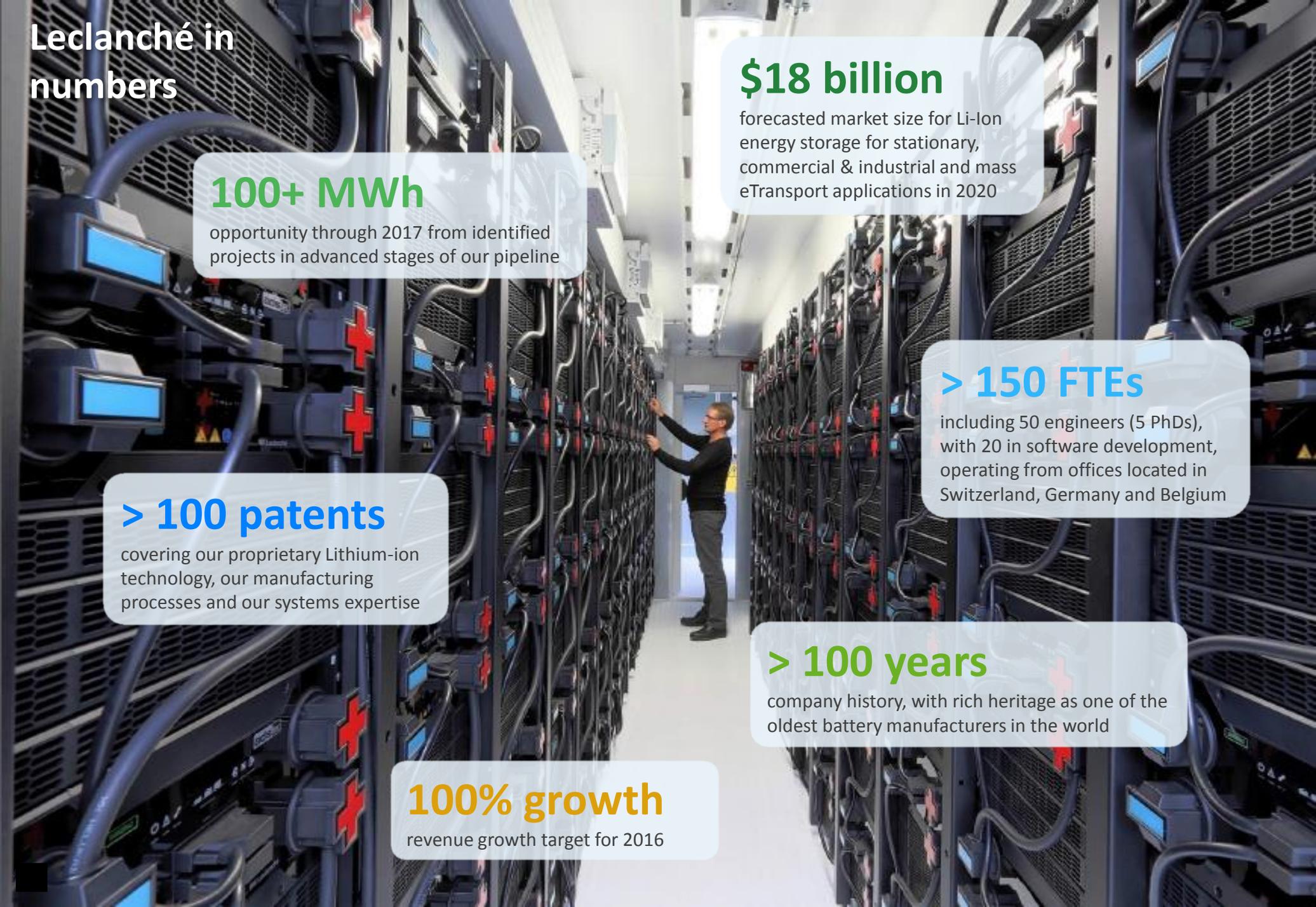
forecasted market size for Li-Ion energy storage for stationary, commercial & industrial and mass eTransport applications in 2020

**> 150 FTEs**

including 50 engineers (5 PhDs), with 20 in software development, operating from offices located in Switzerland, Germany and Belgium

**> 100 years**

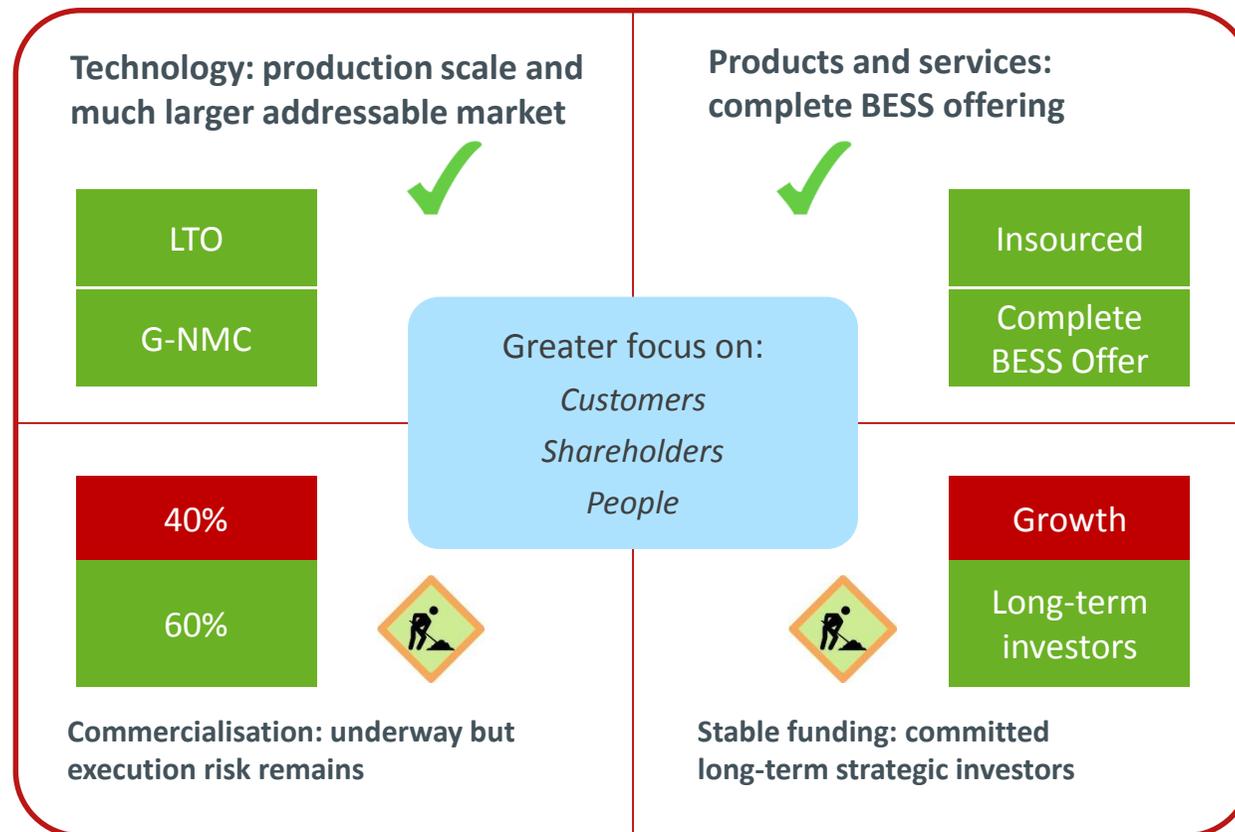
company history, with rich heritage as one of the oldest battery manufacturers in the world



# The work underway from 2015 through to 2017



*We are delivering on our plan, noting that the market is calling for increasingly vertically integrated execution capabilities*



# 2015, the journey of transformation

## Leclanché now serves customers with a unique fully integrated solutions

Asset planning & management software

Utility-scale generation & microgrids



Commercial & industrial battery systems



eTransport



Power conversion systems

Drivetrains

Project win



Project win



World's largest electric Ferry project

Solutions delivery as EPC\*, including selective financing

Systems integration and engineering expertise

Battery management system (BMS)

Module design

World's grid ancillary services project



Proprietary Lithium Titanate Oxide (LTO) cells for leading performance in long-life and rapid-charge applications



Proprietary G-NMC\* cells for energy intensive applications



Third party battery cells and other energy storage technologies



\*Graphite anode and Nickel-Manganese-Cobalt cathode

\*Engineering Procurement and Construction

# Objectives communicated at 21<sup>st</sup> January 2016

## Assemblée Générale Extraordinaire

We are on track to achieve our 2016 objectives:

1. Increase backlog to 75 MWh
2. Double revenue
3. 20% product cost reduction
4. Reduce EBITDA loss by further 50%
5. Secure funding for growth plan and future operations



**But execution risks remain as we work toward fulfilling our objectives**

- *Activating contingency plans to alleviate the loss of production due to the fire accident*
- *Plan to deliver 30MWh in 2016 to meet demand which is 6x our 2015 volume*

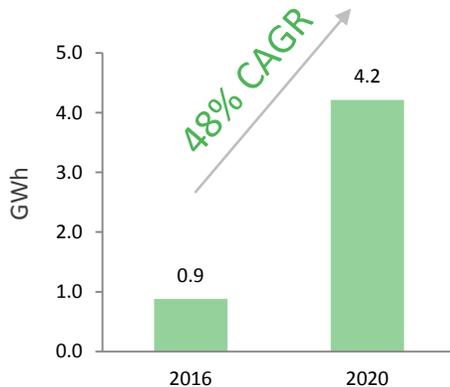
# We have a sharpened focus on high growth end-markets



## Utility-scale generation & microgrids



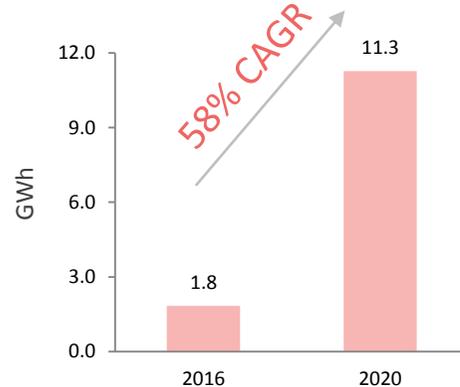
- Micro-grids: renewable integration
- Grid stabilisation and peak shifting



## Commercial & industrial battery systems



- Commercial, industrial & residential
- Solar lighting, medical, telecoms, security & defence
- Branded consumer (selected markets)



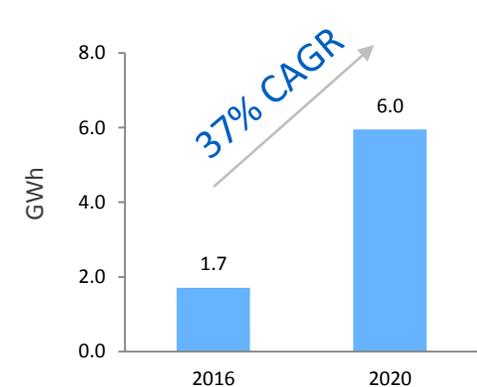
Source: Navigant Research



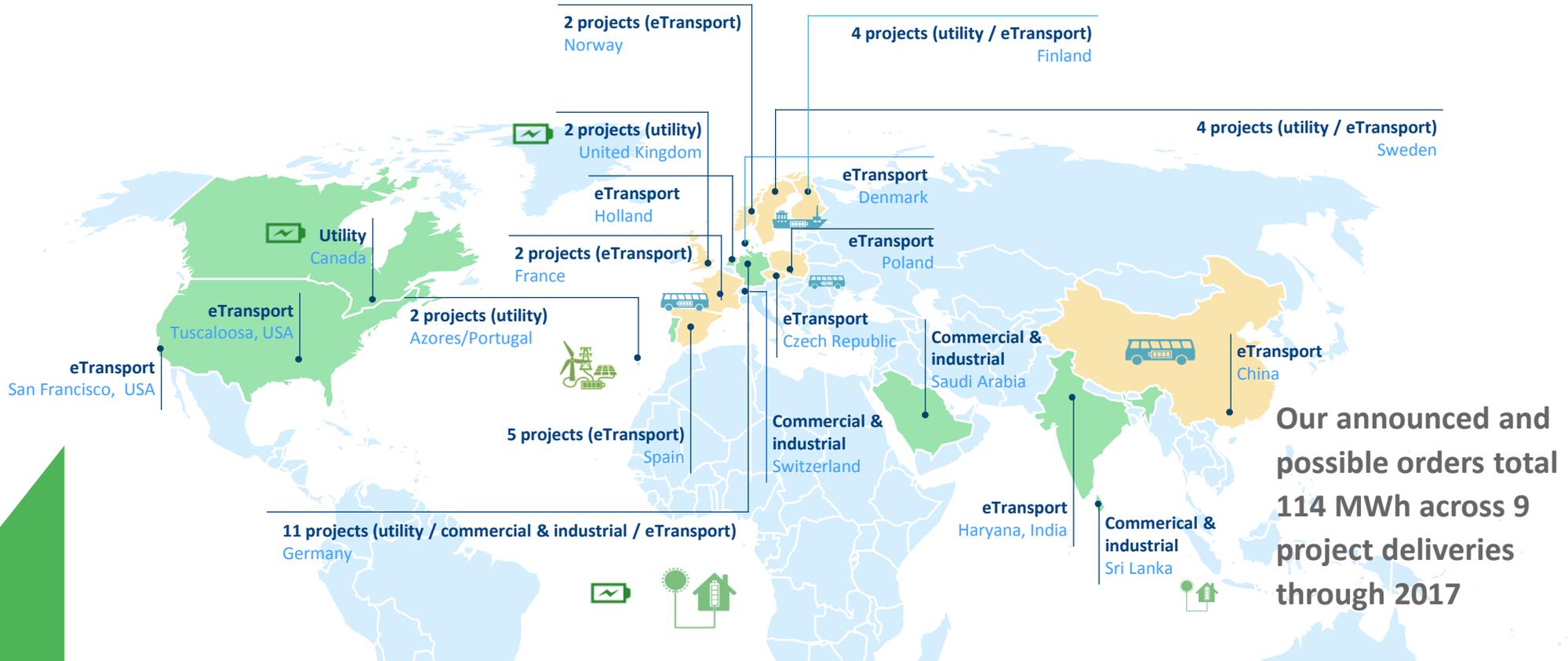
## eTransport



- Fleets of buses, trains & trams
- Ferries and tugboats
- Forklifts, cranes, mining vehicles



# We are building a diverse global customer base following international demand



**Our announced and possible orders total 114 MWh across 9 project deliveries through 2017**

**Our secured projects and advanced pipeline encompasses over 40 projects in 19 countries**

- Secured projects and pipeline
- Project pipeline only



# We have a sizeable revenue opportunity in our segments

			Estimated market size		Implied market share in 2020		
			2016	2020	1%	5%	10%
Utility-scale generation & microgrids		<i>GWh</i>	0.9	4.2	0.04	0.2	0.4
		<i>\$m</i>	1,200	3,700	40	190	370
Commercial and industrial systems		<i>GWh</i>	1.8	11.3	0.1	0.6	1.1
		<i>\$m</i>	2,300	12,600	130	630	1,300
eTransport		<i>GWh</i>	1.7	6.0	0.1	0.3	0.6
		<i>\$m</i>	700	1,800	20	90	180
<b>Total</b>		<i>MWh</i>	4,400	21,400	200	1,100	2,100
<b>Implied Leclanché revenue opportunity</b>		<i>\$m</i>	4,300	18,100	180	910	1,810

Source: Navigant Research

# To accelerate growth, we are making substantial investments in software, controls and integration tools

2016

2018

## Battery Cell



*Innovation to improve price-performance*

## Battery Module



*Move to lighter, scalable and cost-competitive modules*

## Battery management systems (BMS)



*Single platform across multiple market applications, with apps for bespoke solutions*

## Pack & rack



*Standardised to enable efficient systems integration*

*Double digit % annual cost reduction, in line with ASP\* reduction thanks to 15 ongoing R&D programs*

*Universal platform*

*Increase in production capacity*

## Cloud software & services



*Enables fleet/asset management*

*Long-term recurring service revenues from next-generation cloud release*

## System integration & EPC



*Integration with drive lines, inverters & energy management systems*

*Industry leading system efficiency to reduce total cost of ownership (TCO)*

\* Average Selling Price



Order pipeline totalling 114 MWh  
across 9 project deliveries  
through 2017



>20x 2015 deliveries

**We have now established growth momentum, but project execution requires capital**

- EPC support
- Working capital
- Selective minority equity

**We require further investment to maintain our competitive position and reduce execution risks**

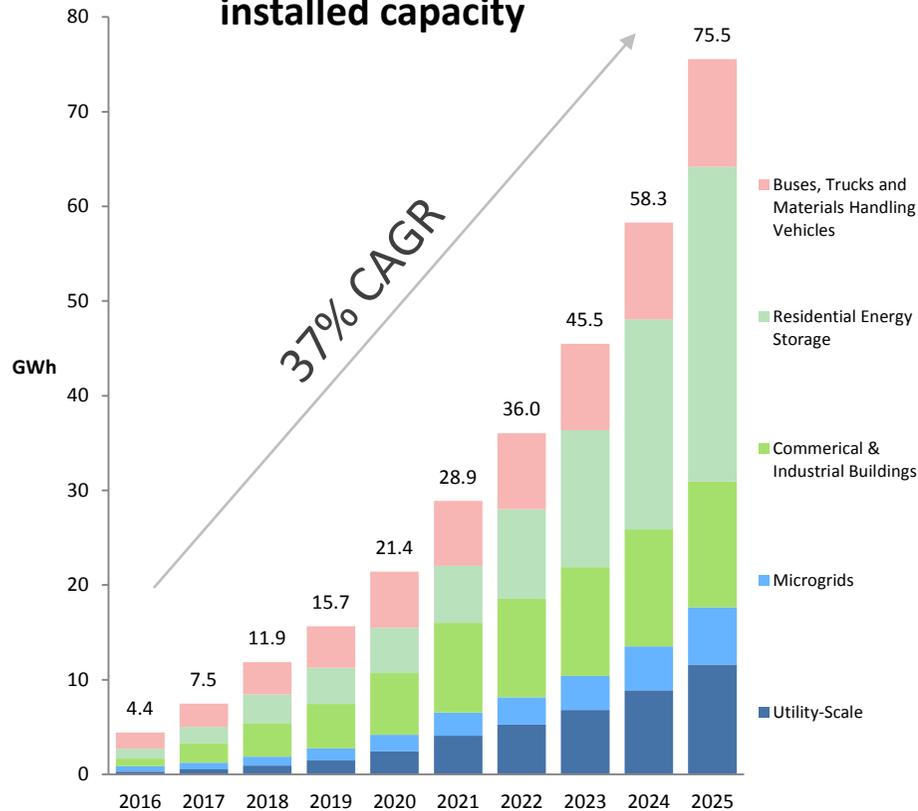
- Support R & D roadmap to improve margins, including downstream acquisitions
- Increase production to 150+ MWh in-house system delivery capacity in 2017
- Product management, sales & marketing

**We are increasing our capital efficiency, including off-balance sheet financing**

- Reduces capital raising risks by recycling working capital for customer projects
- Up to CHF 30 million off-balance sheet funding already secured for 2 projects (Graciosa, Ontario IESO)
- Increasing productivity per person

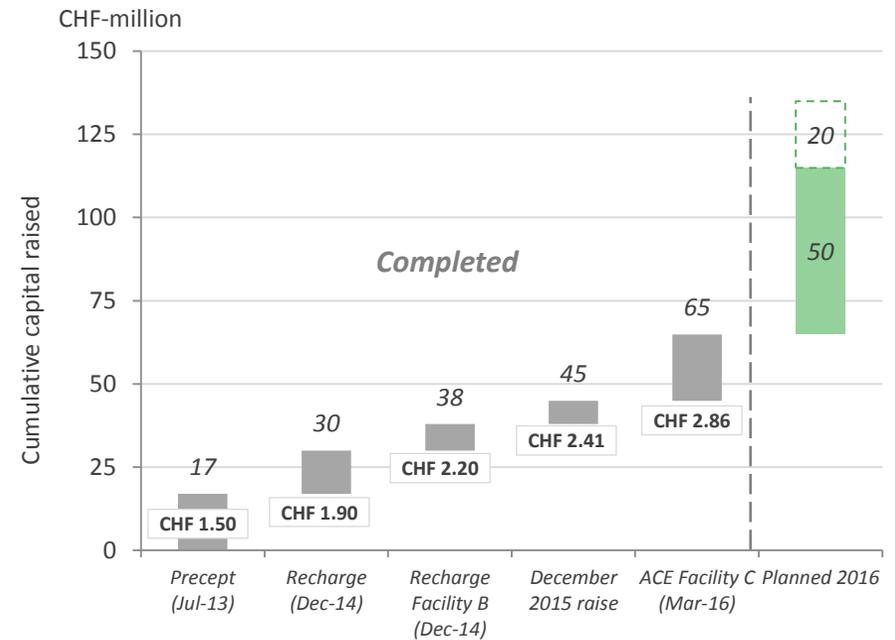
# Our announced plans to raise further capital enable us to meet the substantial market growth opportunity

## Forecast global Li-Ion battery installed capacity



Source: Navigant Research

## Large capital raise at an increased valuation to attain sustainable self financing



CHF 2.86 denotes per share value

# In 18 months we have built a solid foundation to execute on Leclanché's substantial growth opportunity



## Large, growing, strategic market

*c.\$18bn annual market in 2020, with target segment growth rates from 37-58% through 2025*



## Strong technology differentiation, IP, software and design know-how

*Strategically important IP enabling longer battery life, critical software and integration tools*



## Solid international pipeline with good momentum

*100+MWh pipeline with blue-chip customers supporting target 100% revenue growth in 2016*



## Vertically integrated with strong 'downstream' capabilities

*Track record and expertise in project delivery to de-risk opportunity pipeline*



## Enhanced management to deliver on growth

*Team now has >150 years combined executive experience and proven track record*



# Fin de l'Assemblée Générale Ordinaire de Leclanché SA

Merci de votre participation !

