



**Revolutionary high performance
batteries based on
common/cheap materials**

BroadBit Batteries Oy
September 2020

Current battery tech limits market

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**~80 B\$
Today**



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**>1 T\$
2030**



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Existing batteries:

**>1 T\$
2030**



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Low capacity (< 260 Wh/kg)

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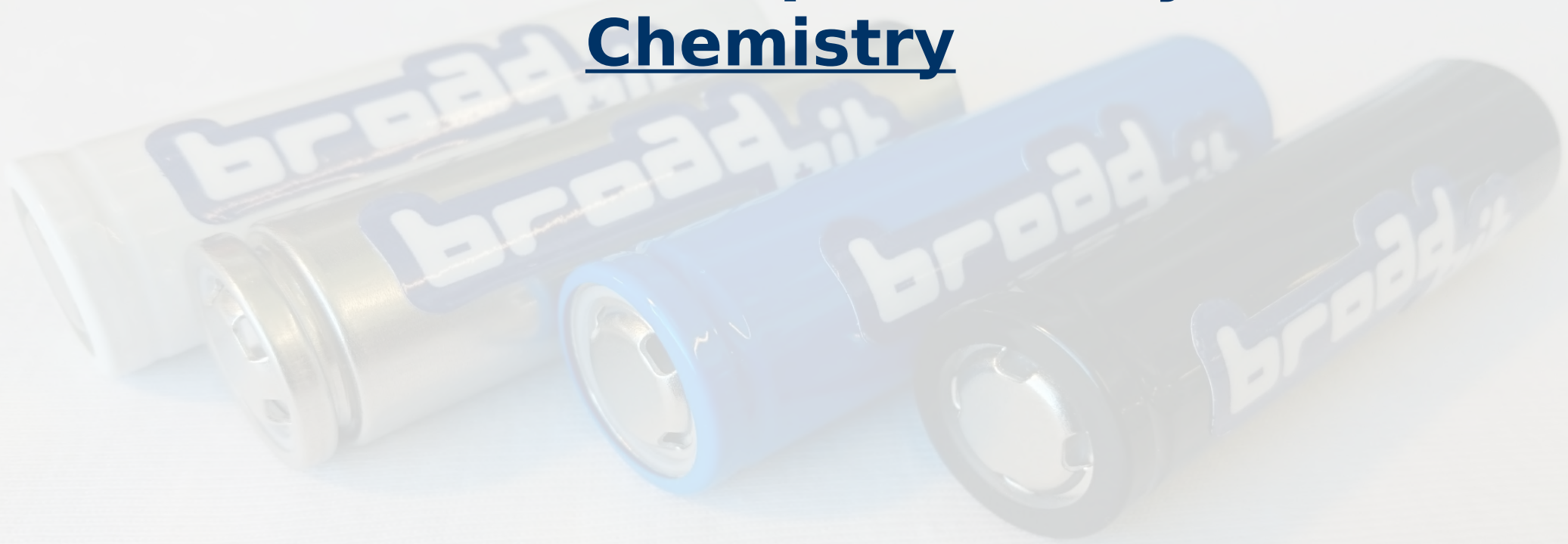
Expensive (>150 \$/kWh)
Harmful (Environment & Users)
Slow to charge (> 2 hrs)
Low capacity (< 260 Wh/kg)
Delicate ($0^{\circ}\text{C} - 40^{\circ}\text{C}$)
Resource limited (Lithium, Cobalt, Nickel)

**>1 T\$
2030**



BroadBit's core battery innovations

Better/Cheaper Battery Chemistry



BroadBit's core battery innovations

**Better/Cheaper Battery
Chemistry**

+

**Better/Cheaper Battery
Manufacturing**

BroadBit's core battery innovations

**Better/Cheaper Battery
Chemistry**

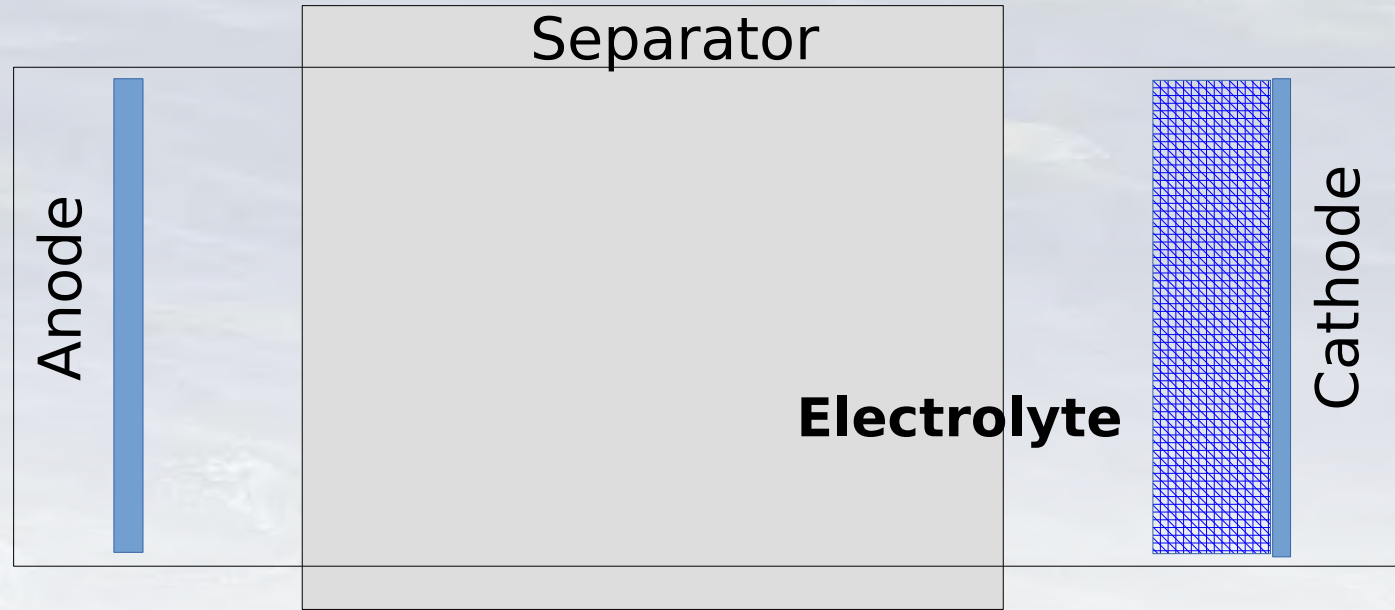
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**Better/Cheaper Battery
Manufacturing**



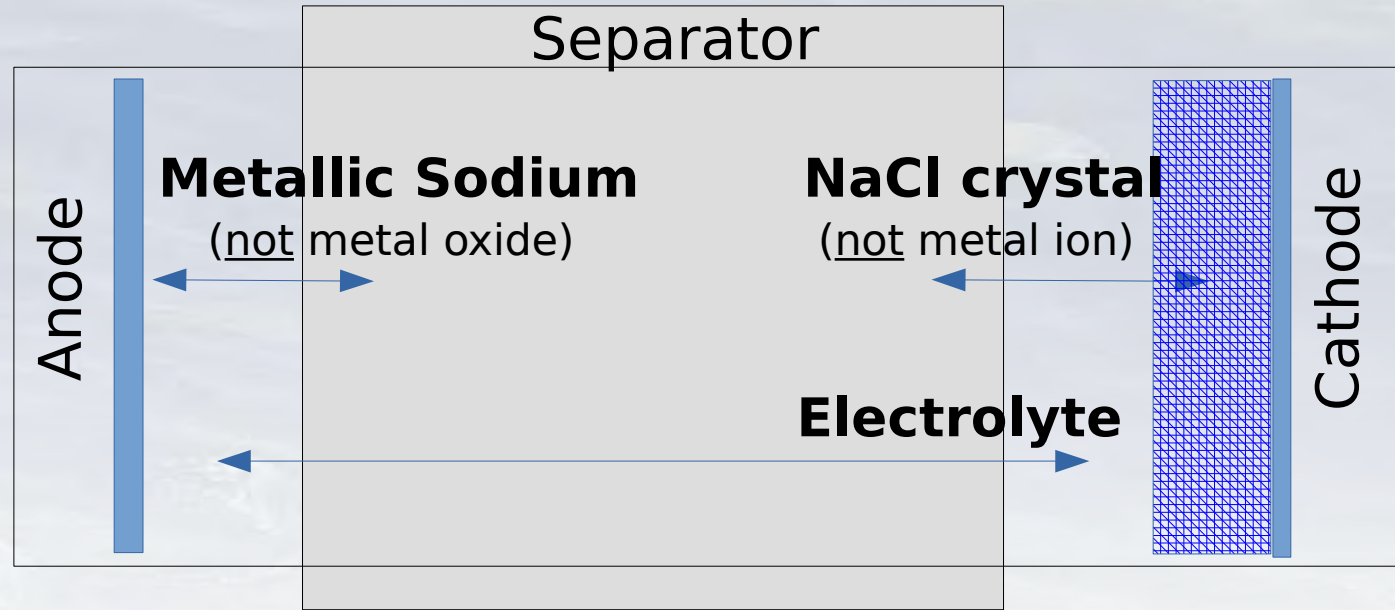
Better/Cheaper Batteries

BroadBit's unique sodium technology



BroadBit's unique sodium technology

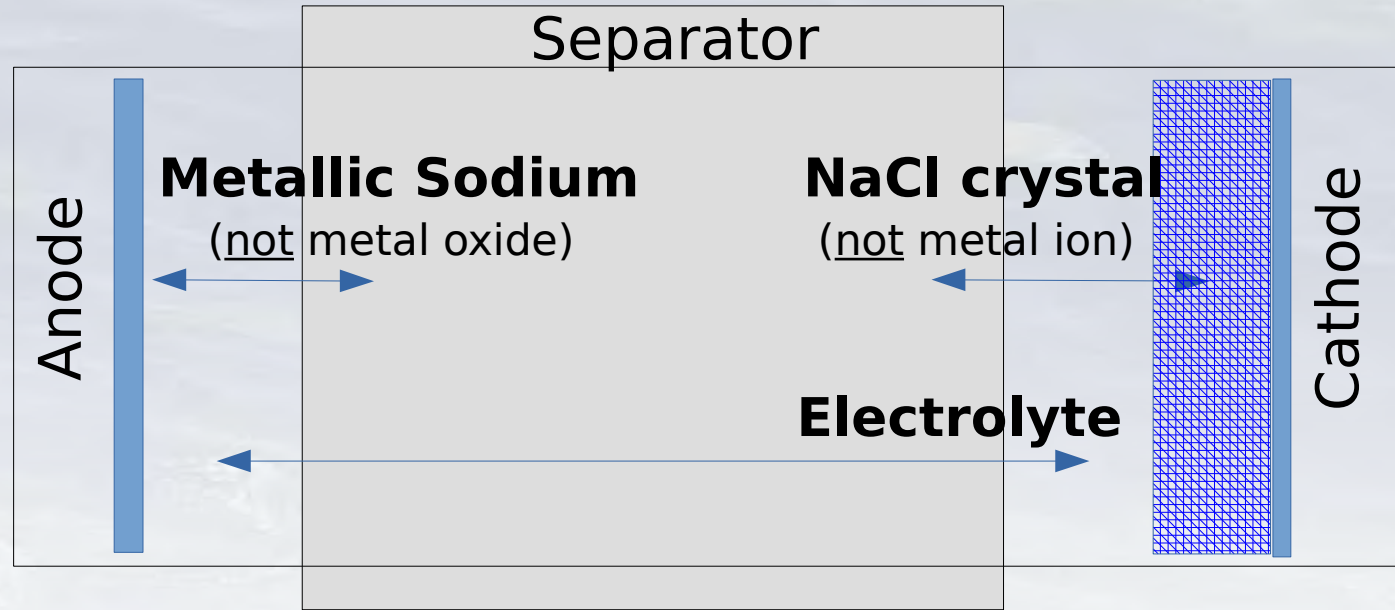
Unique operating principle



BroadBit's unique sodium technology

Unique operating principle

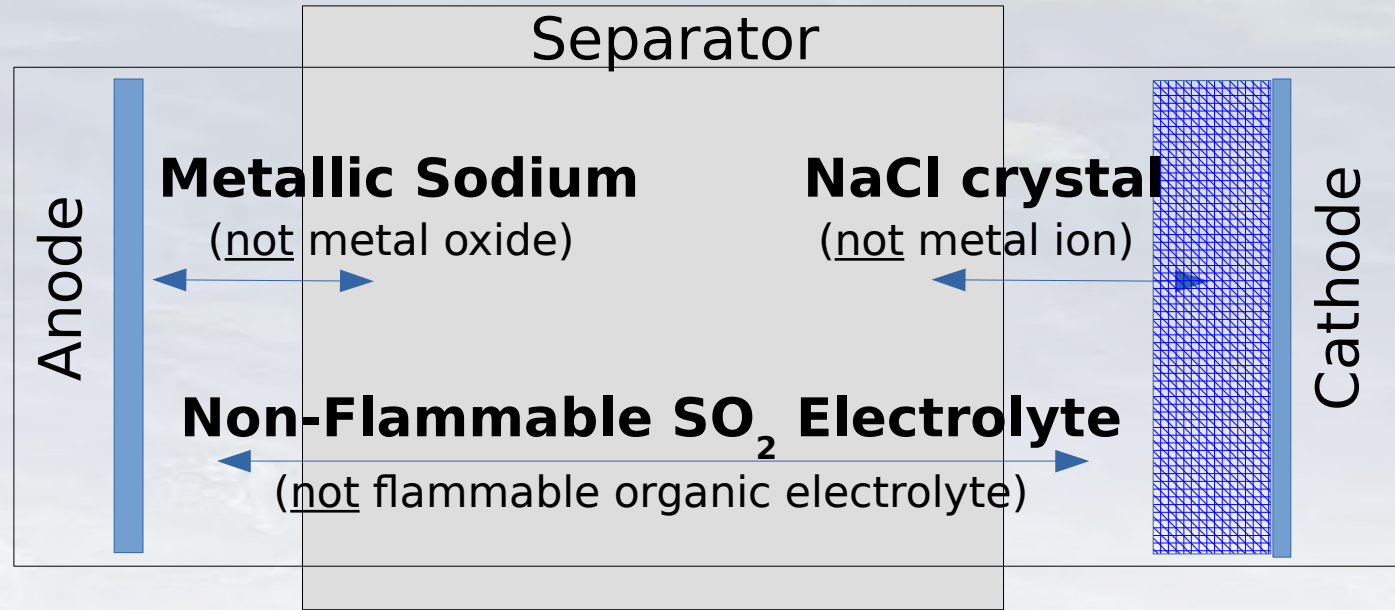
Superior Performance



BroadBit's unique sodium technology

Unique operating principle

Superior Performance

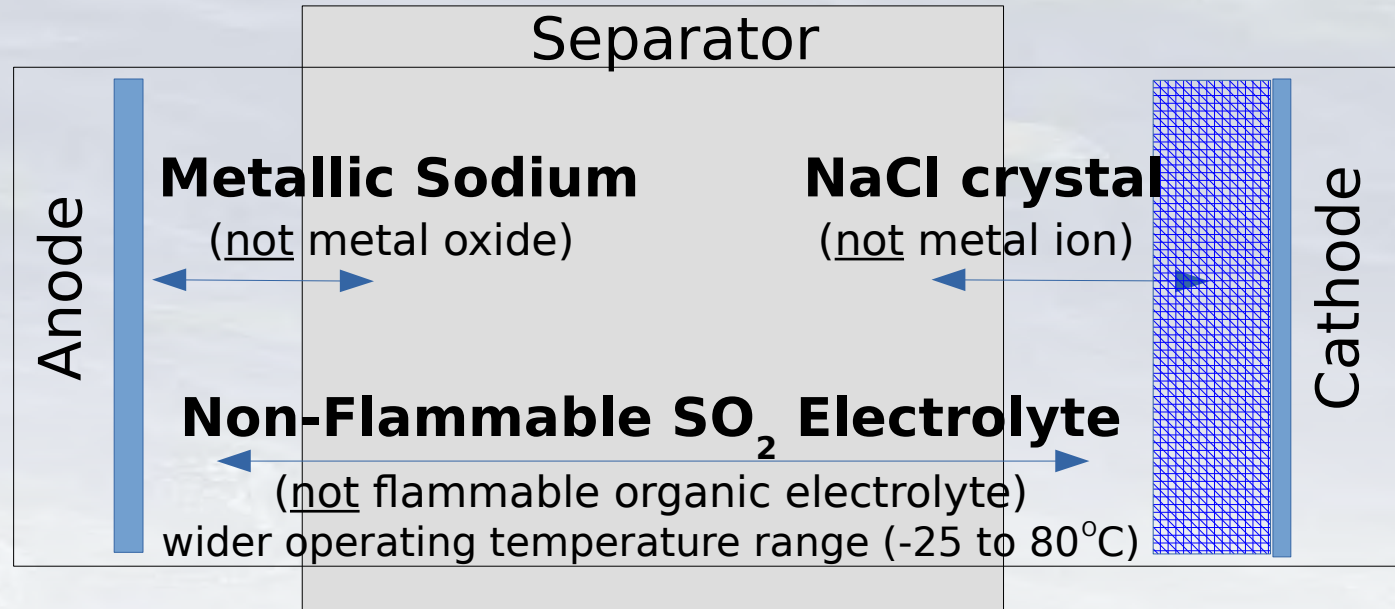


BroadBit's unique sodium technology

Unique operating principle

Superior Performance

Low cost

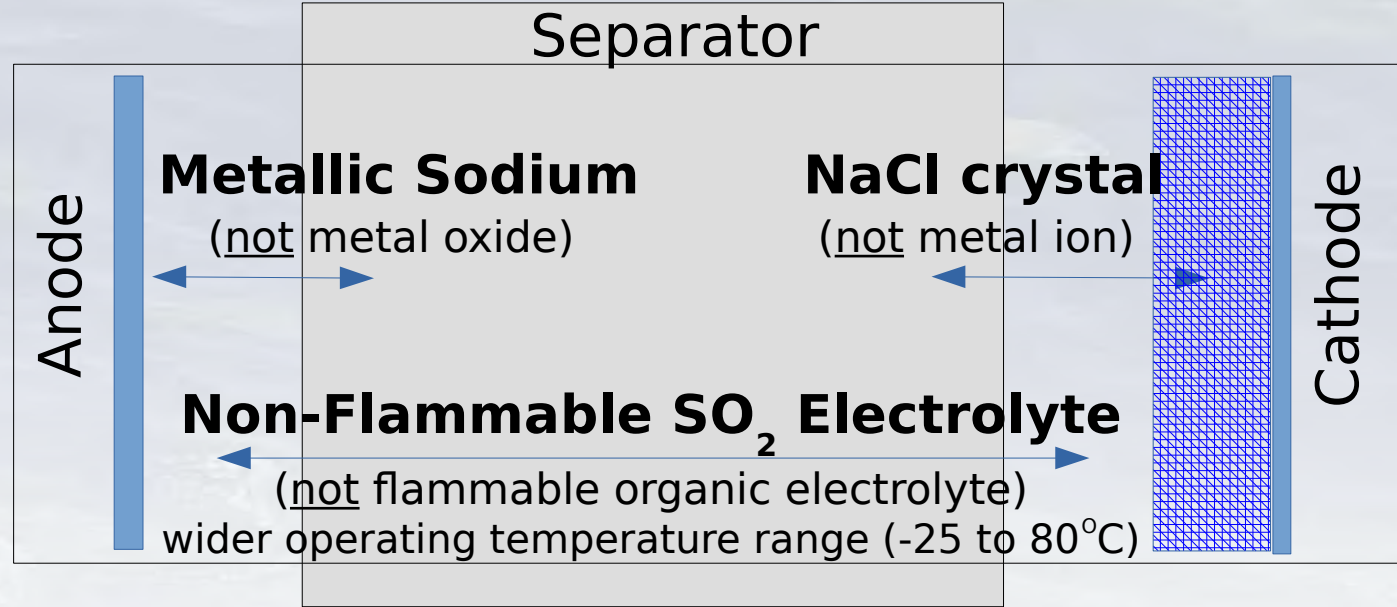


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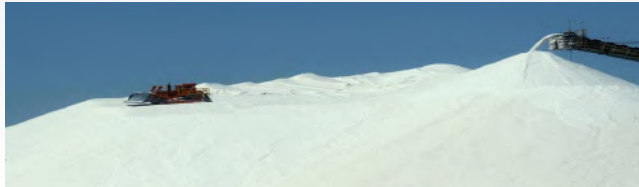


Salt (NaCl)

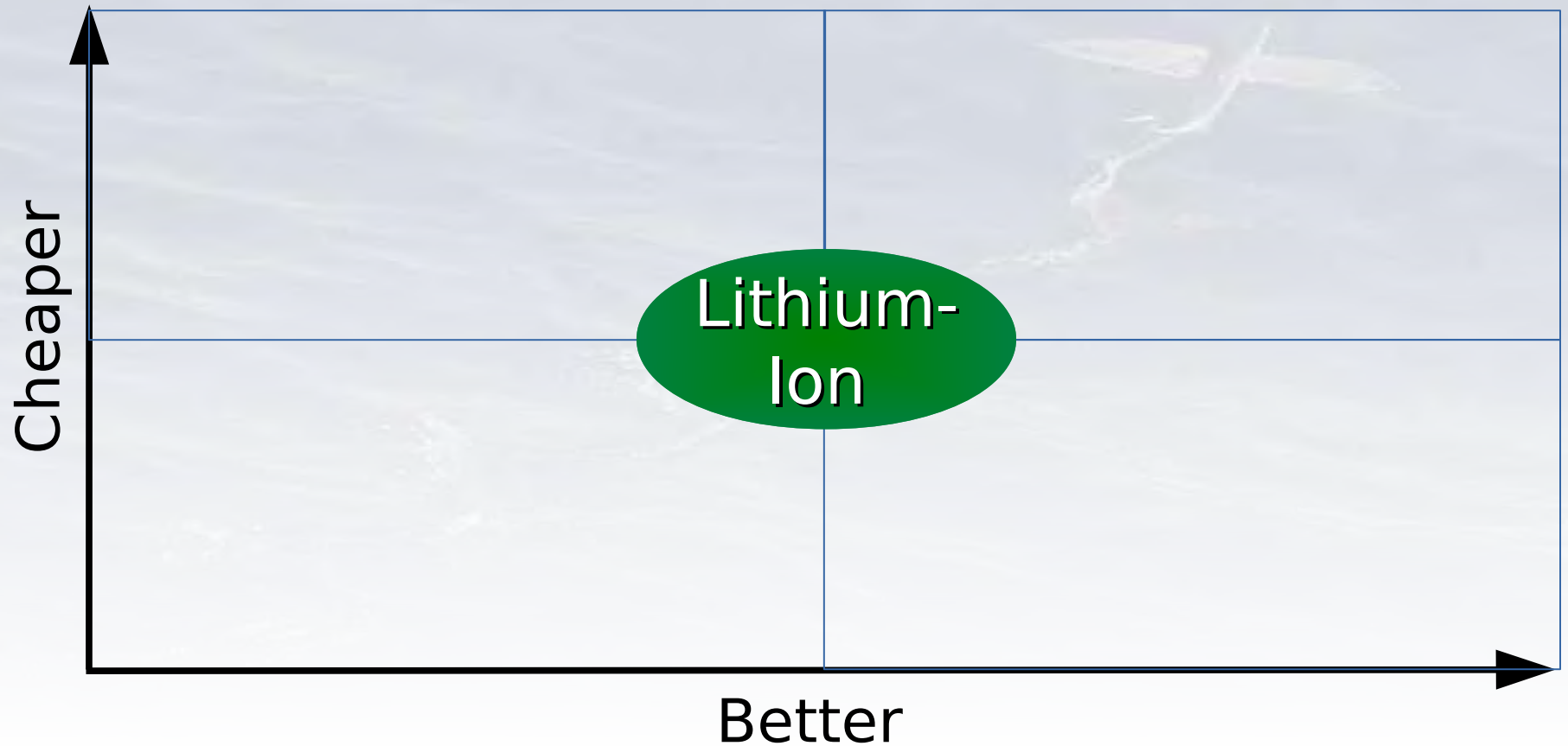
Sand (SiO₂)

Coal (C)

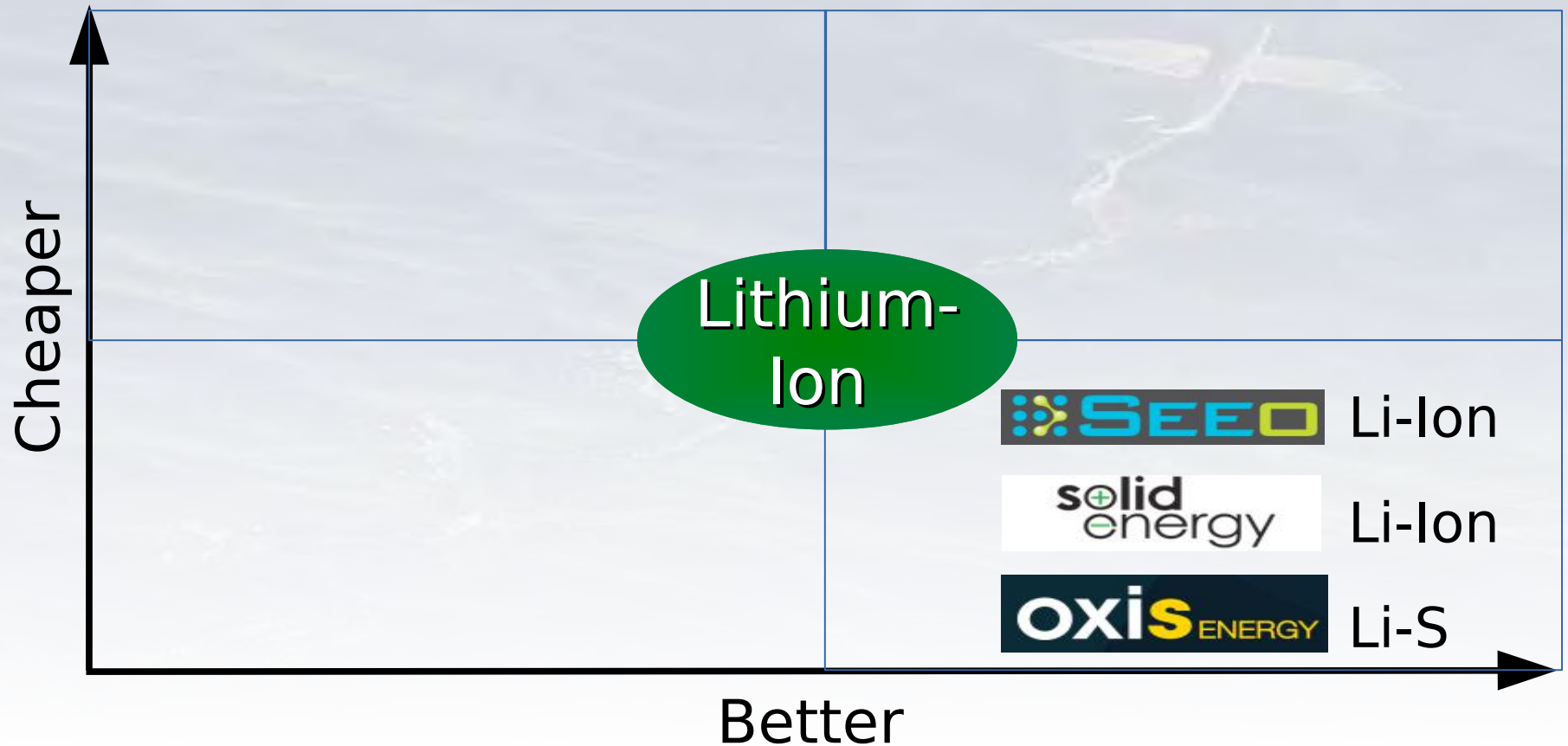
Sulfur (S)



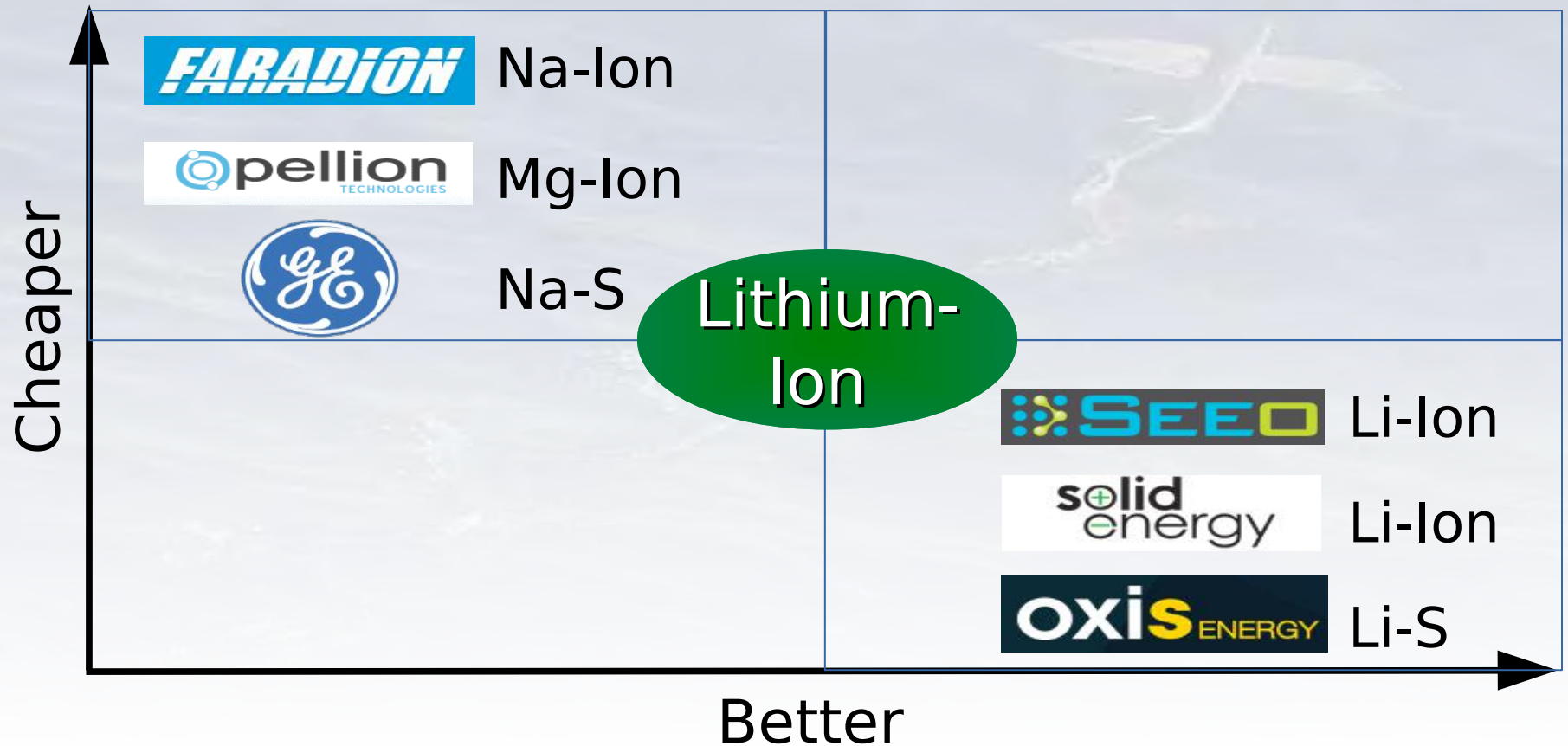
BroadBit outclasses the competition



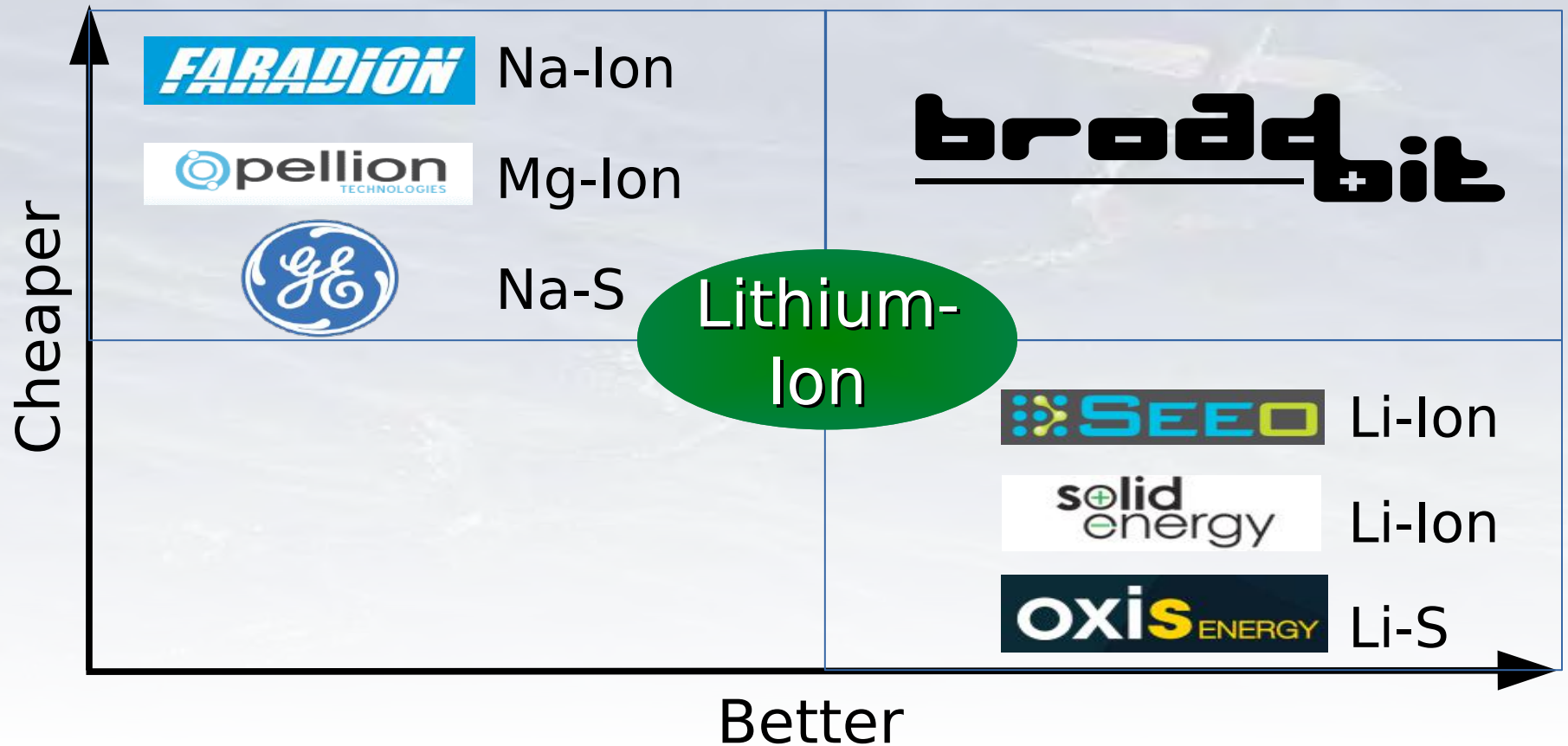
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BroadBit opens new markets

Higher Energy



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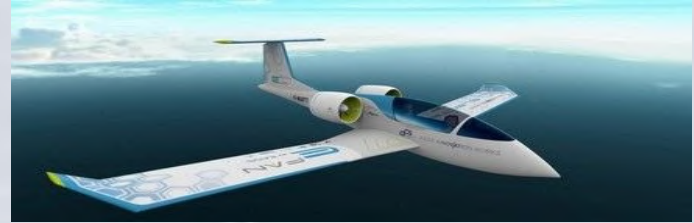


Lower Cost



BroadBit opens new markets

Higher Energy



Lower Cost



Better Durability



BroadBit's market introduction plan

Short Term: **Niche and specialty (2021)**
e.g. Power Tools, OBU, UPS, Drones

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Transportation (2021)

Bikes, Buses, Trucks, Ships, Cars, Planes

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Grid storage, Grid stabilization

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Electrolyte → Anodes + Cathodes



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Outsourced production

Cells → Battery Packs



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Outsourced production

Electrolyte → Anodes + Cathodes → Cells → Battery Packs



Components



BroadBit has an experienced team

David Brown, PhD (CEO):

Founder & founding CEO of 5 startups, head of two research labs, Fulbright Fellow with >200 patents and over 40 M€ raised and managed.



Andras Kovacs, MSc (CTO):

Founder & founding CEO of 2 startups, editor of the EV Recharging Reservation standard, original inventor of the BroadBit technology.



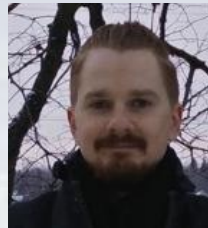
Alex Slesarev, PhD (Ch Chem):

Founder and founding CEO of 2 startups, head of Zonko R&D, electrochemistry and materials recovery expert



Tapani Alasaarela, PhD (Ch Eng):

Founder & founding CEO of 1 startup. Co-developing the world's 1st commercial R2R Atomic Layer Deposition (ALD) reactor.



Artem Faustov, PhD (Chem):

15 years industrial experience in lithium and sodium battery and battery component development and manufacturing



Jan v. Pfaler, PhD (CFO/Analyst):

CEO of Posera Wind Energy. Angel Investor. 25 years experience in mathematics, algorithms financial modeling and energy management systems.



BroadBit seeks visionary partners

Investments to date:

2000 k€ private

2500 k€ public



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Income to date:

350 k€ from samples, demos and PoCs

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2.0 M€ Q4 2020 (>80M€ Val)

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Purchase assembly for 1st 3 niche LOIs

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7.5 M€ H2 2021

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Scale production for 1st volume app.

European
Utility Week
Winner

Energy
Week
TOP 30

THE NEXT
MOBILITY
& ENERGY

broadb+bit Batteries

SLUSH
TOP 20

GREENTECH
CHALLENGE

FASTTRACK
THE FAMILY BUSINESS ACCELERATOR

PIONEERS '17

CEE Scaleup
Challenge

THE ONE
INITIATIVE

NORDIC IMPACT
BUSINESS SUMMIT

STARTER
business acceleration

K-STARTUP
GRAND CHALLENGE

STLC

SEAL OF
EXCELLENCE
European
Commission

Never run out

Contact: David Brown, PhD
david.brown@broadbit.com

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4YFN | Connecting
Startups

eit InnoEnergy
Knowledge Innovation Community

munichnetwork
collaborative innovation

inno4X

GENERATION

Award
CTC
CLEANTECH SUMMIT ROTTERDAM

NVF
NORDIC VENTURE FORUM
Cleantech Award

White Bull
BULLY AWARD
WINNER 2017

kapsch
challenging limits
FACTORY
Winner 2017

ΣInnoVest
Cleantech
Award

IDTechEx EVES
Launchpad

Runar
Backstrom
Grant

WEBIT FESTIVAL EUROPE
ENTERPRISE | POLICY | STARTUPS
Green Award

MILStartup
Award

Accenture
INNOVATION AWARDS

NORDIC
STARTUP
AWARDS
Best Social Impact

Airbus
BizLab
Aerospace Accelerator

CAMBRIDGE
CLEANTECH
Member

GLOBAL
PITCH
2ND BATCH

INNOVATION
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EVS
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rockstart. 2 vision

Winner
RawMaterials
Connecting matters

SINO TRACK

TOP 10