EPSRC Centre for Doctoral Training

in

Sustainable Electric Propulsion (SEP)

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61%
of businesses surveyed are not confident in finding enough people available with the necessary skills to fill their high-skilled job vacancies

21% (£1.2 trillion)
of the UK's total turnover is generated from the engineering sector

203,000 people
with Level 3+ engineering skills are required per year up to 2024

9% working in engineering jobs are BAME, compared to 12% of the UK workforce

While women comprised
47%
of the overall UK workforce in 2018, they only made up
12%
of those working in engineering roles

The most positive projection of graduates entering into engineering is still
20,000
fewer than needed

79,000 "related roles"
requiring mixed application of engineering knowledge and skill alongside other skill sets will need to be filled every year to 2024

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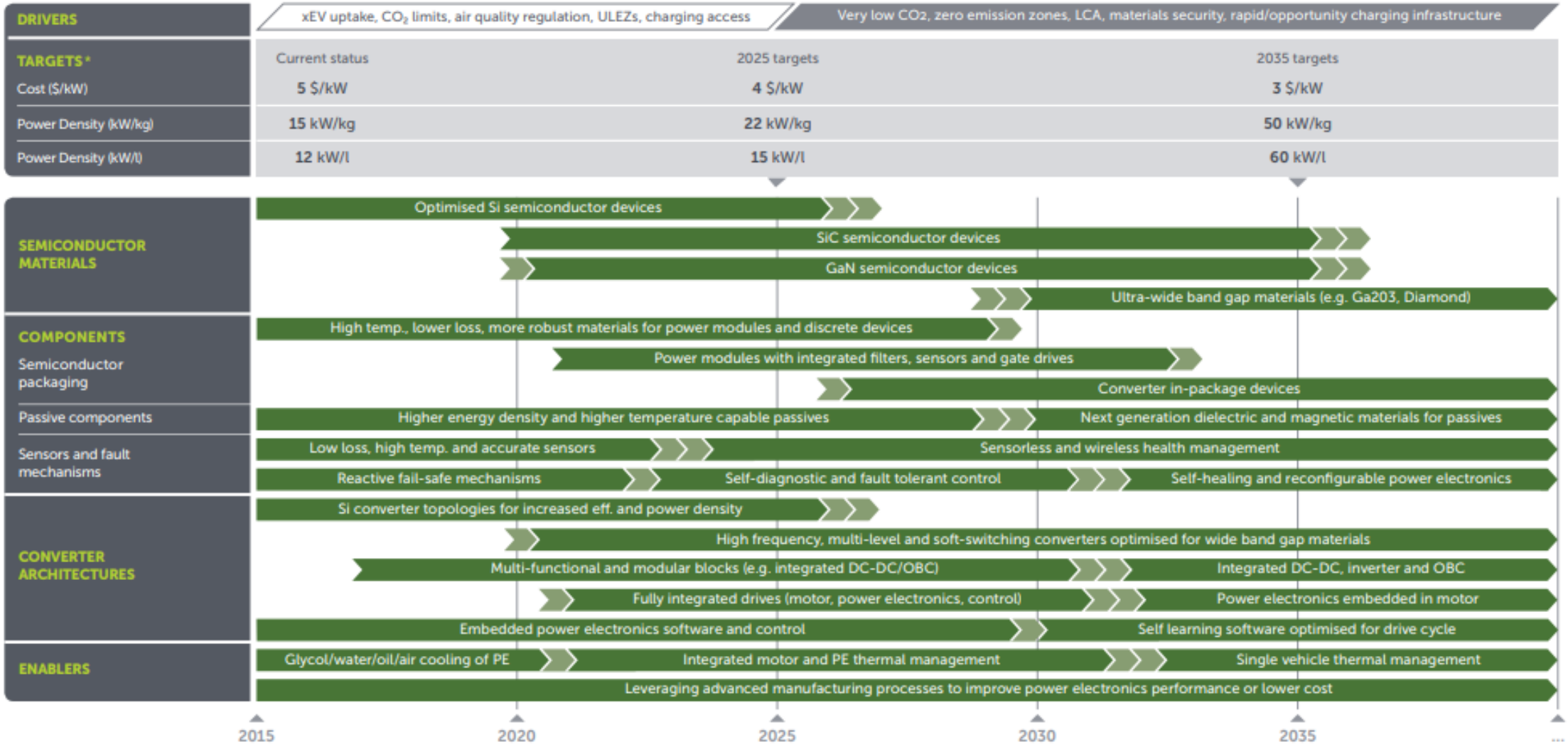

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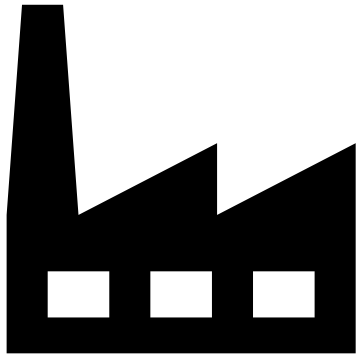
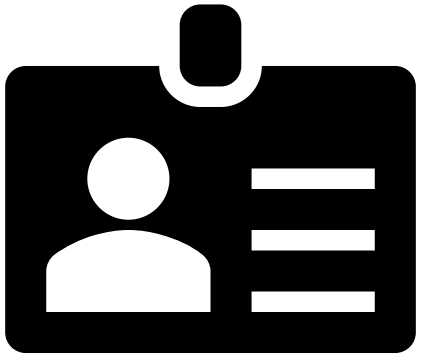
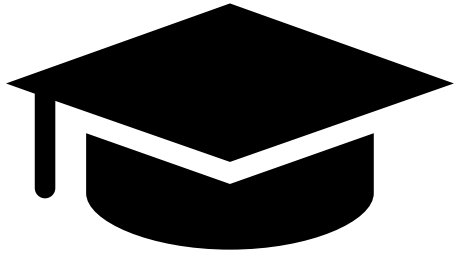
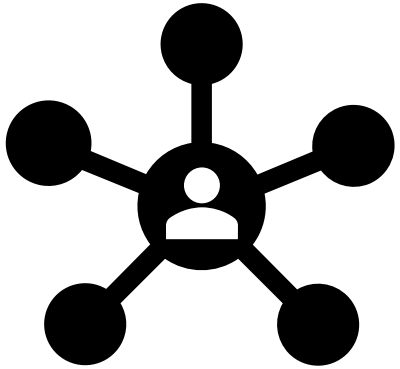






New training
methods
to address
diverse engineering
skills
with fun factor



Vision

"The creation of a new generation of UK specialists driving the electric revolution in the transport sector."

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In Partnership with ADS

Advanced Development Systems Group

ADVANCED PROPULSION CENTRE UK

Advanced Propulsion Centre UK

AEROSPACE TECHNOLOGY INSTITUTE

Aerospace Technology Institute

amantys

Amantys

AVL

AVID technology

AVID

TURNTIDE

CATAPULT
Compound Semiconductor Applications

Catapult

长安汽车 CHANGAN

ChanganUK

EML Environmental Measurements Limited

CONTROL TECHNIQUES

dyson

Dyson

ECPE

ECPE

Höganäs

Hoganas

WILLIAMS ADVANCED ENGINEERING

Innovate UK
Knowledge Transfer Network

Innovate UK

IXYS
A Littelfuse Technology

IXYS

PEMD

PEMD

PROTEAN
Electric Automotive Technology

Protean

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RICARDO

Ricardo

TTPi
The Thinking Pod innovations

The Thinking Pod innovations

TOSHIBA

Toshiba

TRIDONIC

Tridonic

RDM GROUP

TT Electronics

TT Electronics

tps
TURBO POWER SYSTEMS

Turbo Power Systems

YASA

Yasa Motors

ZF

ZF TRW

TES

mocean energy

GKN AEROSPACE

GKN AUTOMOTIVE

FORMTECH COMPOSITES

Infineon technologies

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Must Think Multi-disciplinary

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Big Data

Circuit Topologies

Control

Electrical Machines

Energy Storage

Manufacturing

Materials

Mechanical design

Reliability and Health Management

Semiconductors

Signal Processing

System control

Thermal Management

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Personal and Professional Skills

Taught Modules and Deep Learning

Research challenges

Cohort-based activities

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Year 1

Training + thesis research

+ cohort based activities

Year 2-4

Thesis research

+ cohort based activities

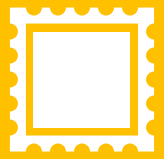
Fusion Training Units

Rapid Prototyping & Teamwork

Year 2

Industrial Design & Leadership

Year 3



Product Design & Responsible Innovation

Year 4

Supervisor on Demand

Supervisor A, B ,C, D

Year 2

Supervisor A, B, D, E, F

Year 3

Supervisor A, C, D

Year 4

Others

- Equality, Diversion and Inclusion (EDI)
- Responsible Innovation
- General Data Protection Regulation
- Confidentiality
- Health and Safety

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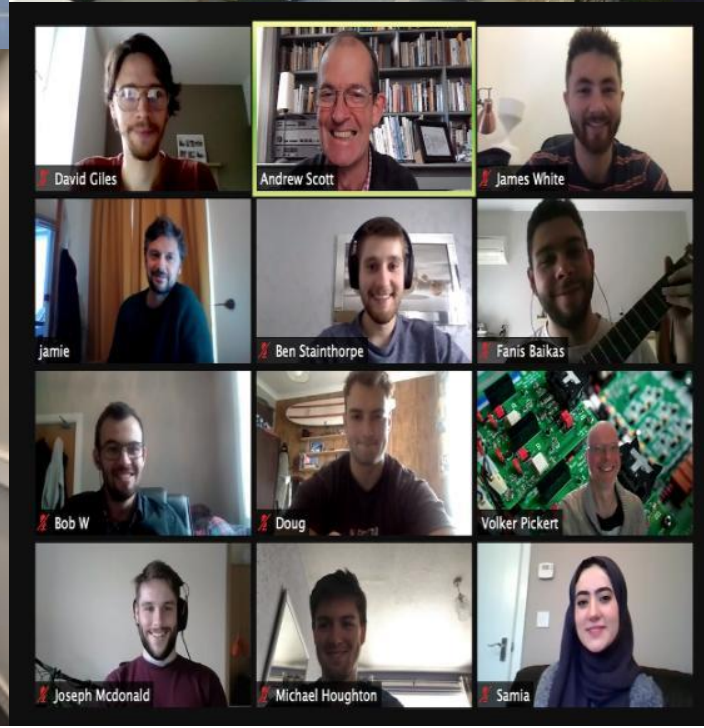


Tell me and I'll forget
show me and I may remember;
involve me and I 'll understand.
Xun Kuang, Chinese Philosopher 312-230 BC

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Come and talk to us:

CDT Manager: Amanda.Lane@newcastle.ac.uk

Website: https://research.ncl.ac.uk/electric-propulsion

Acknowledgment Pictures and Figures

Page 2: www – Pinterest
Page 4: Engineering UK 2018 Report
Page 10: www – Springer Open Blog
Page11: www – Springer Open Blog
Page 17: www- Appreciation at work

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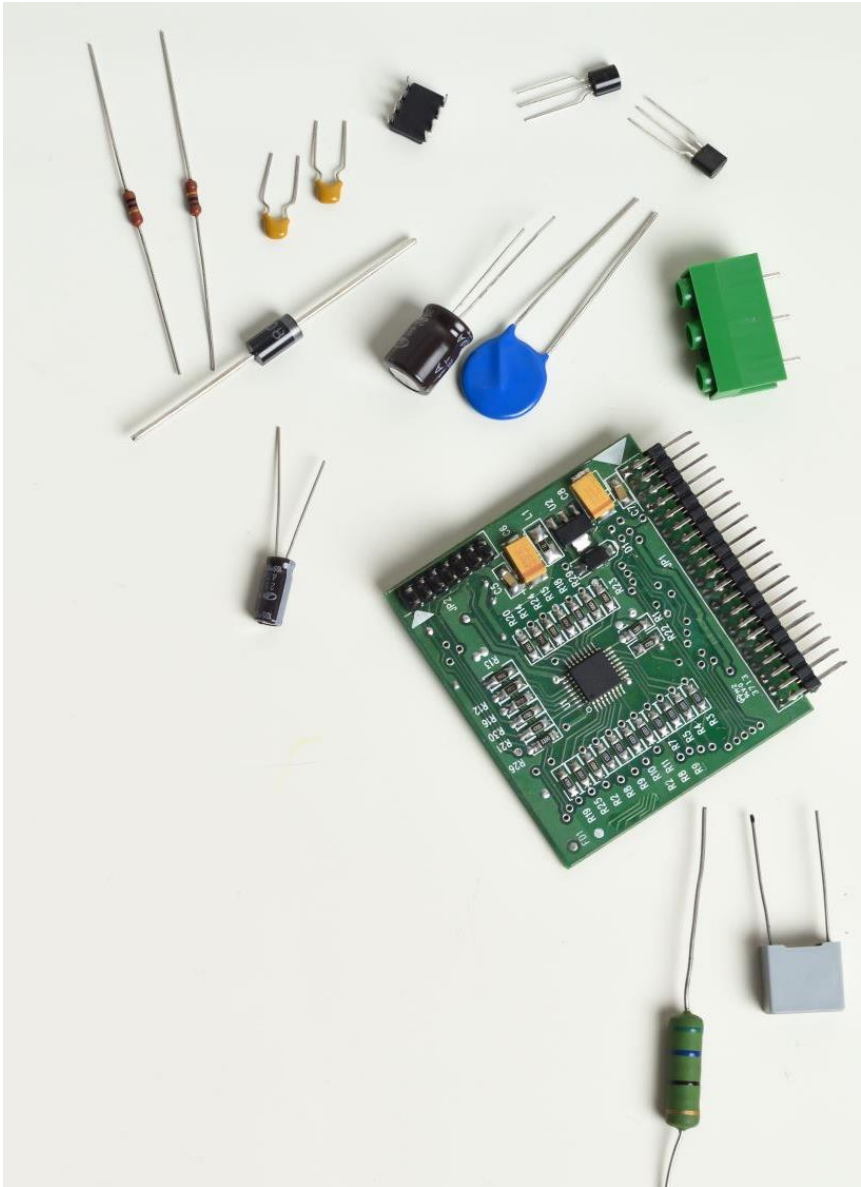
Joined Centre between
- UKRI
- 31 industrial and network partners
- and 2 universities

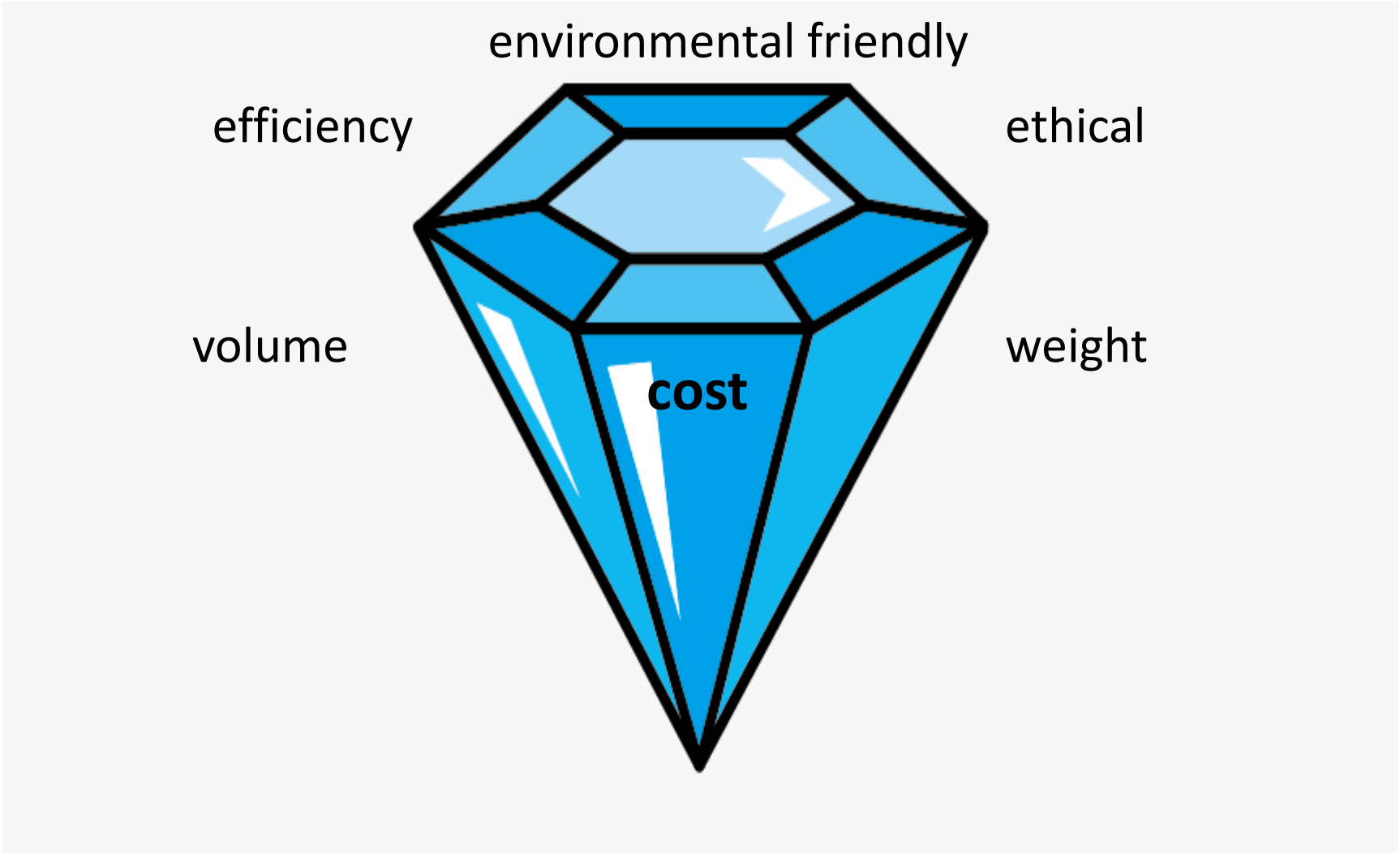
A minimum of 50 students will be trained over 5 years

Research covers the electric revolution

Developed bespoke cohort-based training programme

- What is CDT SEP?




environmental friendly
efficiency
ethical
volume
weight
cost