



Marine Sail Transport and Carbon Markets: Opportunities and Challenges

Sustainable Sea Transport Talanoa,
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CO₂ concentration at 2100 (upper end projections)

700

Why reduce Carbon emissions ?

CO₂ concentration at 2100 (lower end projections)

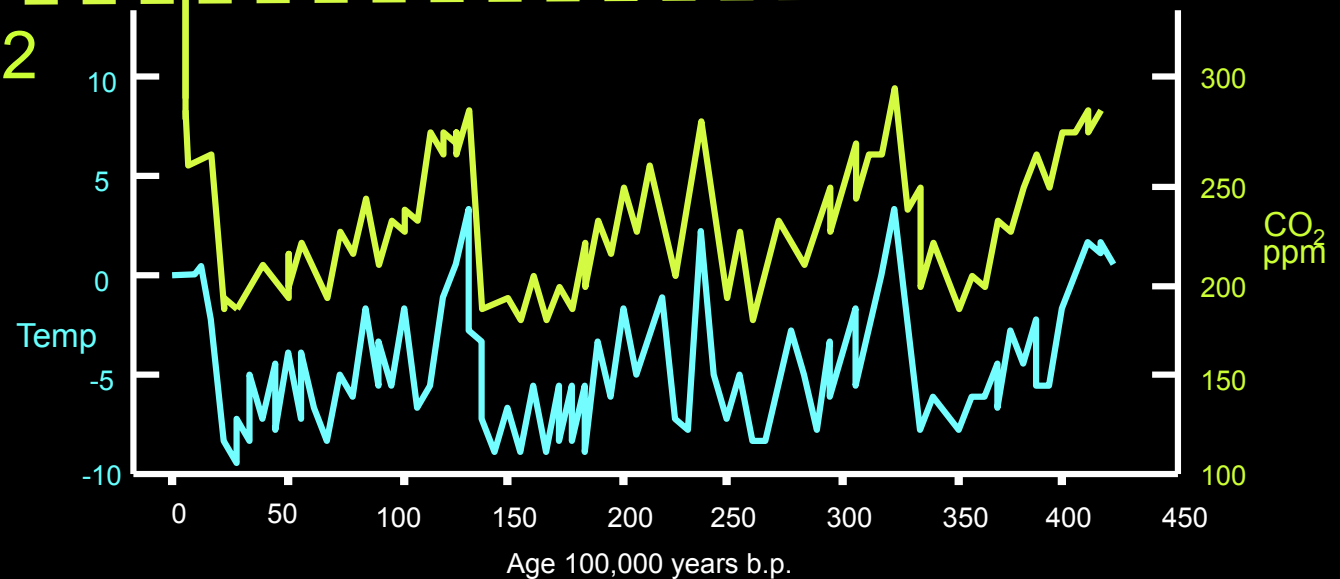
600

Current CO₂ concentration

400

350ppm

Safe level for CO₂



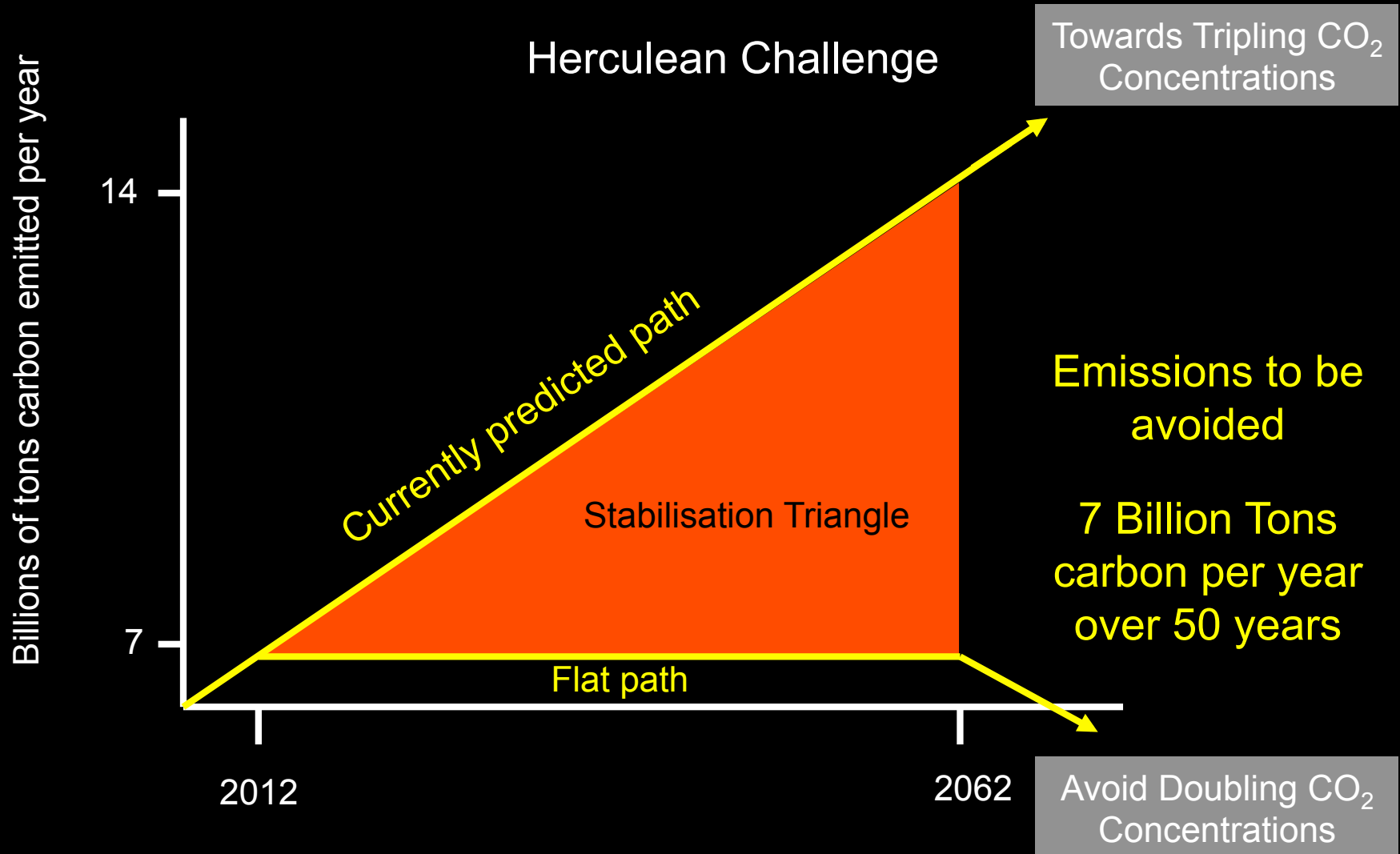


Source = Approx 80% Fossil Fuels

Why reduce Carbon emissions ?



Source = Approx 80% Fossil Fuels

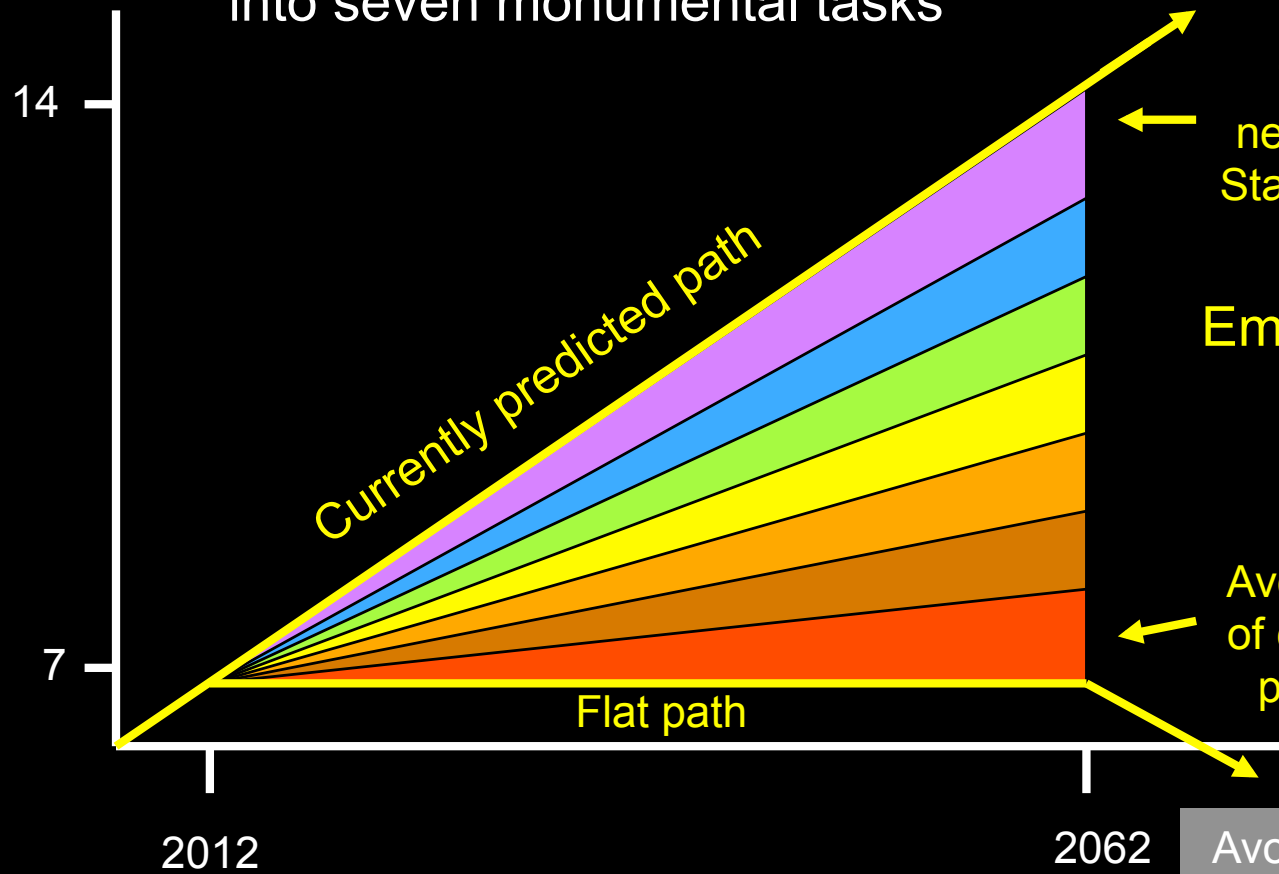




Source = Approx 80% Fossil Fuels

The Stabilisation Wedges concept turns an overwhelming Herculean Challenge into seven monumental tasks

Billions of tons carbon emitted per year



Towards Tripling CO₂ Concentrations

7 'Wedges' are needed to build the Stabilisation Triangle

Emissions to be avoided

1 'Wedge' Avoids 1 Billion tons of carbon emissions per year by 2062

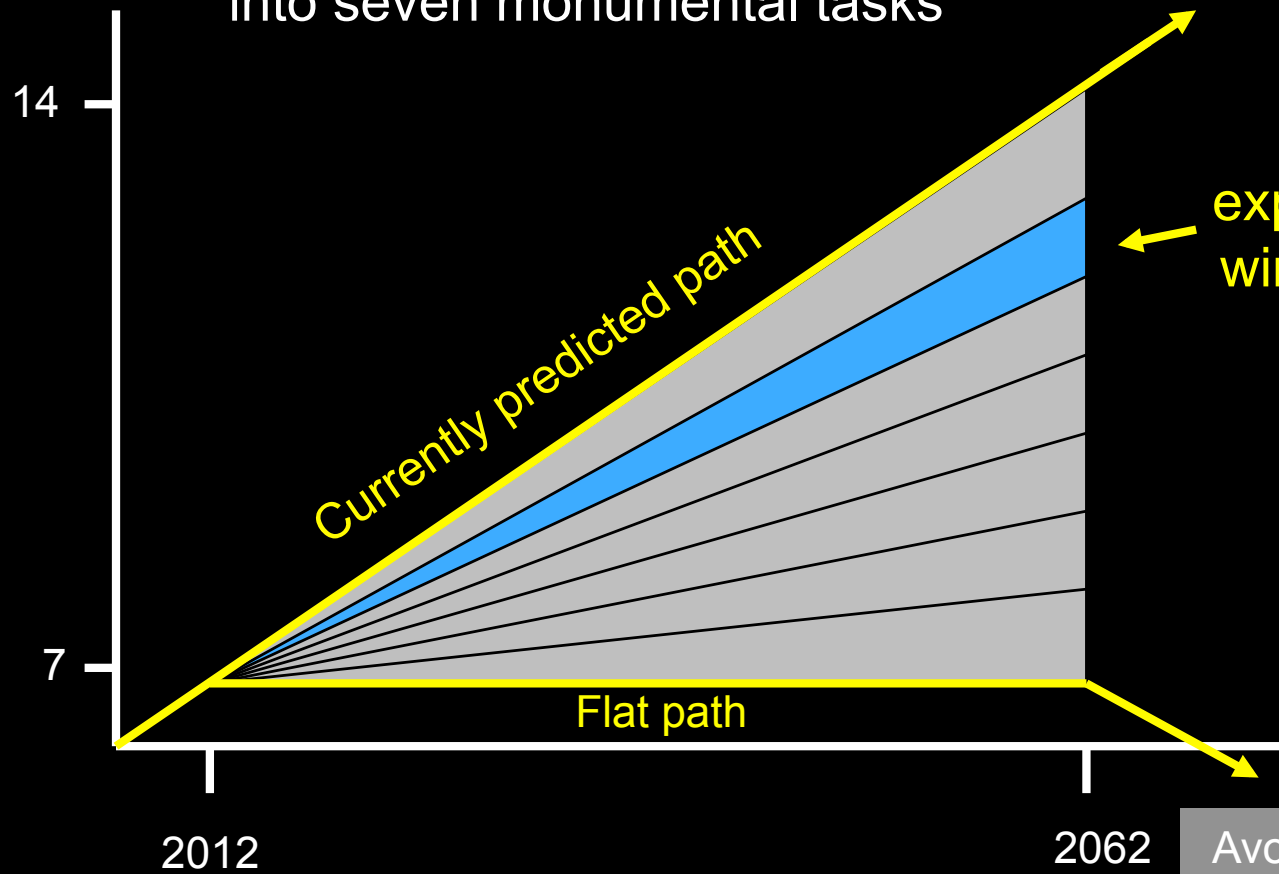
Avoid Doubling CO₂ Concentrations



Source = Approx 80% Fossil Fuels

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Billions of tons carbon emitted per year



Towards Tripling CO₂ Concentrations

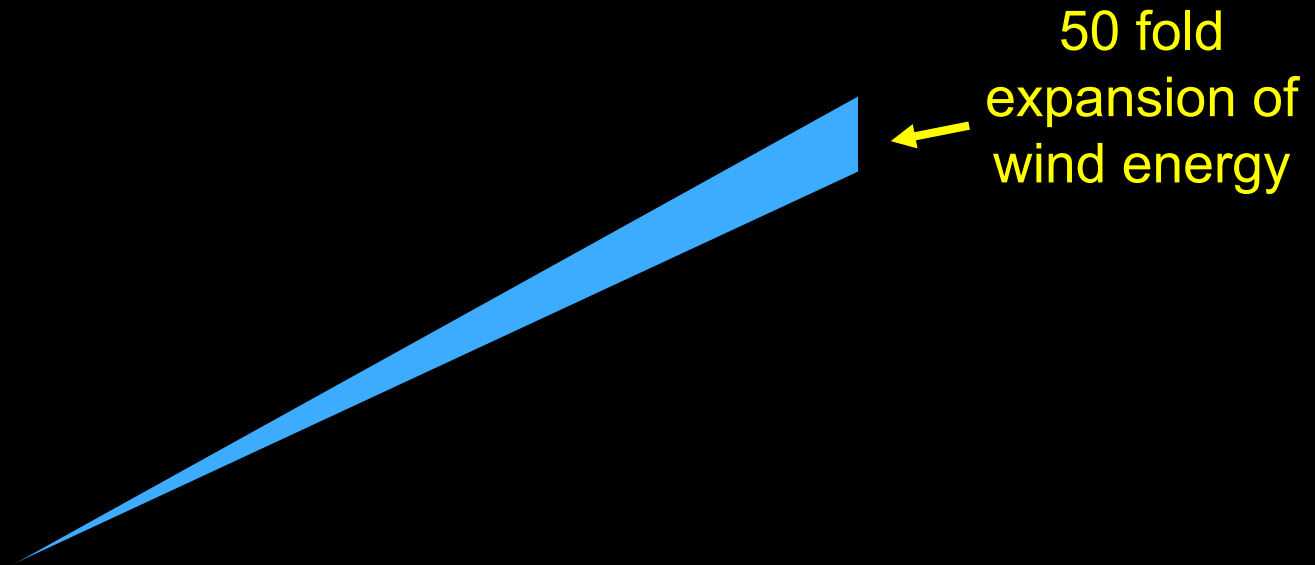
50 fold expansion of wind energy

Avoid Doubling CO₂ Concentrations



Source = Approx 80% Fossil Fuels

The Stabilisation Wedges concept turns
an overwhelming Herculean Challenge
into seven monumental tasks





Source = Approx 80% Fossil Fuels

For Example,
Go from this...



50 fold
expansion of
wind energy



Source = Approx 80% Fossil Fuels

If you've got a couple of spare weeks I will explain

How do carbon markets work?

50 fold expansion of wind energy

...to this

One option is to seek co-financing through carbon markets





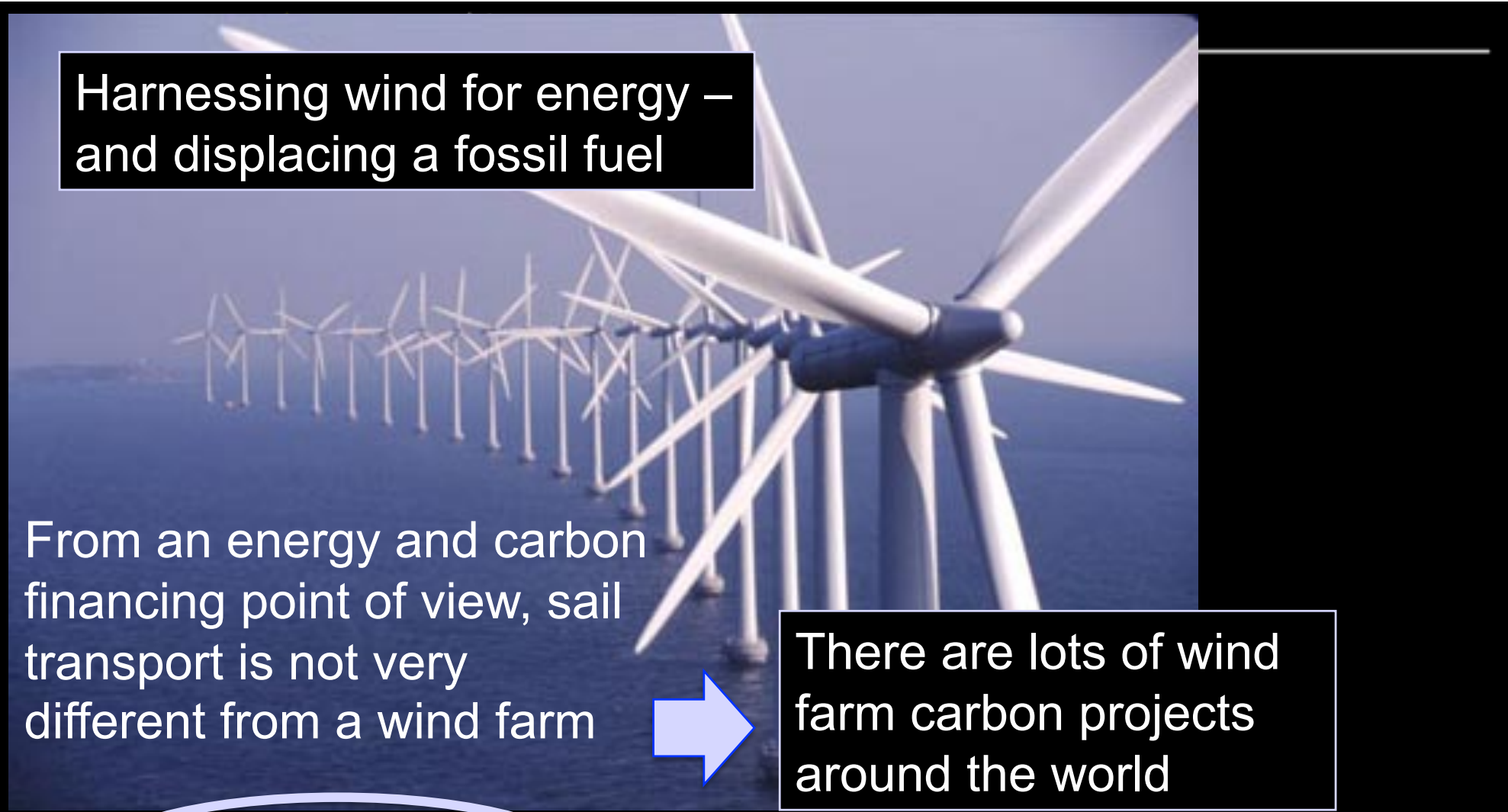
We can make a start by looking at it from a seller point of view

How do carbon markets work?



A marine sail transport programme is a potential seller of carbon credits in the international carbon market.

Carbon credits are a potential source of co-finance for sustainable marine transport initiatives.



Harnessing wind for energy –
and displacing a fossil fuel

From an energy and carbon
financing point of view, sail
transport is not very
different from a wind farm



There are lots of wind
farm carbon projects
around the world

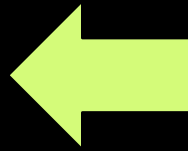
A marine sail transport programme is a potential seller of
carbon credits in the international carbon market.

Carbon credits are a potential source of co-finance for
sustainable marine transport initiatives



Project = emissions with clean energy project

Carbon credits



Project emissions



Avoided emissions

Baseline emissions

Baseline = emissions without clean energy project



Project



Baseline



Green Marketing

Corporate Social Responsibility

Carbon neutrality aspirants

Fossil fuel polluters

Potential Buyer

Wind marine transport

Potential Seller



Project



Baseline



Get grant funding to do a pilot project:

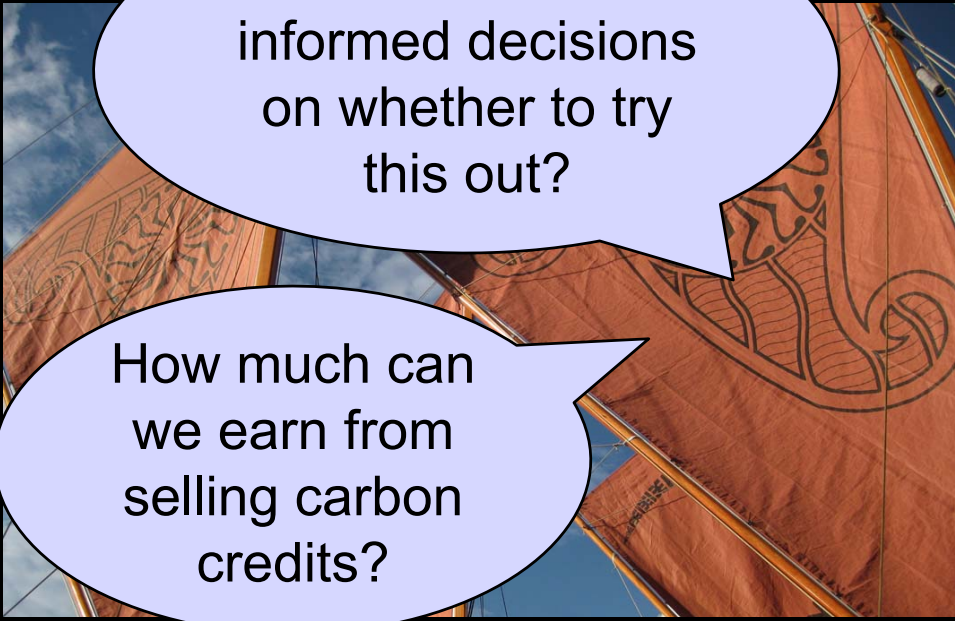
Phase 1 Scoping Study

Phase 2 Feasibility Study / CBA

Phase 3 Demonstration Activity

Depends On Several Factors:


- Project development costs
- Scale of project
- Carbon prices



How can we make informed decisions on whether to try this out?

How much can we earn from selling carbon credits?

Project



Like any commercial enterprise, viability depends on weighing costs and benefits

Baseline



Get grant funding to do a pilot project:

Phase 1 Scoping Study US\$20-30k

Phase 2 Feasibility Study / CBA US\$60-100k

Phase 3 Demonstration Activity US\$60-100k

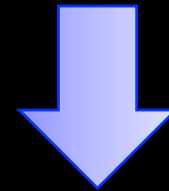
US\$140-230k

Well within scope of small scale grant funding

} These costs become clearer after scoping



Project



Can then roll out a programme to support a new green industry