

# Addressing the jobs and climate crises through an infrastructure recovery package

Mika Minio-Paluello  
@mikaminio  
Transition Economics

What makes a good recovery stimulus?



# Quick job creation

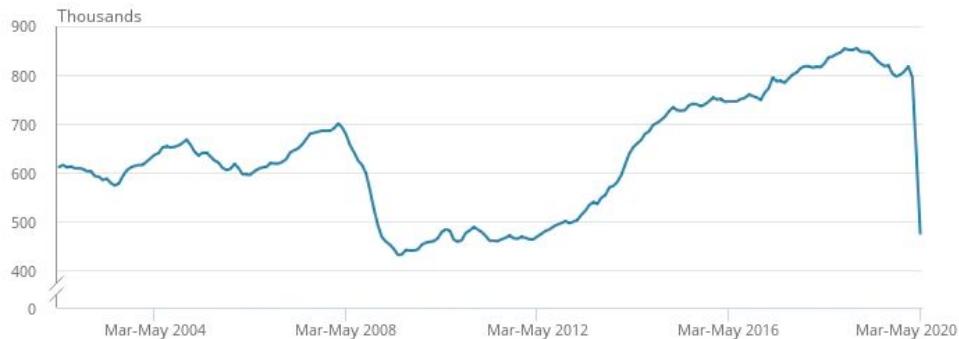
## Economics

29% of UK businesses to cut jobs in next three months, survey says

## Economics

Weak recovery could make unemployment worse than 1980s levels, warns OBR

Number of vacancies in the UK, seasonally adjusted, between March to May 2002 and March to May 2020



# Social and economic benefit

Criteria based on World Bank (2020)  
*Planning for the economic recovery  
from COVID-19: A sustainability  
checklist for policymakers*

- Longterm direct job creation/protection
- Targets/includes held-back regions
- Builds domestic low-carbon technology & manufacturing
- Supports transition in hard-to-decarbonise sectors
- Improves productivity
- Develops skills base
- Resilient to reinstated lock-in
- Supports health, public services and social fabric
- Improves resilience, land or sea

# What infrastructure investments make a good recovery package for the UK?

The full data and report referenced in these slides are available here:  
<http://transitioneconomics.net/uk-covid-recovery-infrastructure-jobs-tuc>

The best projects for  
emergency job creation are  
also 'green' projects!

(But not vice versa.)

# Best for quick job creation (by number of jobs)

<i>Project</i>	<i>Average jobs created over 2-year stimulus</i>
Build social housing (using offsite manufacture)	361,613
Retrofit social housing	267,715
Expand and upgrade rail network	126,540
Build cycle lanes & pedestrianisation	103,018
EPCs for all homes	79,200

# Best for quick job creation (by multiplier)

<i>Project</i>	<i>Jobs created / £1 million invested / year</i>
Retrofit social housing	33.46
EPCs for all homes	33.00
Retrofit public buildings	32.61
Build cycle lanes & pedestrianisation	32.60
Reforestation schemes	31.55



# Best for social and economic benefit

<i>Project</i>	<i>Score (out of 20)</i>
Retrofit public buildings	16
Build battery factories for EVs	15
Retrofit social housing	15
R&D for decarbonising heavy industry - experimental technology (e.g. cement, petrochemicals, CCS demonstration, hydrogen)	14
Expand bus network (buy new electric buses from domestic manufacturers)	14
Commission new electric ferries for island travel	14

# TUC clean infrastructure jobs: 1,240,000

- ✓ 50% of UK towns & cities receive best-practice cycle lanes & pedestrianisation
- ✓ Electrify buses and rail network
- ✓ Electric car charging for >50% of rural businesses
- ✓ Build plastics recycling plants - to end plastic exports
- ✓ New social housing construction in line with Shelter demands
- ✓ Retrofit 40% of social housing to EPC C level

- ✓ Domestic clean manufacturing protected and boosted
- ✓ Flood Defences in line with Environment Agency needs
- ✓ Expand forests by 15%
- ✓ Support farmers to switch to Organic Agriculture
- ✓ Accelerated Full Fibre Broadband rollout
- ✎ Road building
- ✎ Water transfer infrastructure
- ✎ Solar generation (on schools, commercial roofs, private roofs)

# What is government's Green Recovery plan?

## 'Flagship green' programme

£2 billion in Green Homes vouchers

£1 billion for public building retrofitting



Fails on jobs -> Less than 100,000 jobs



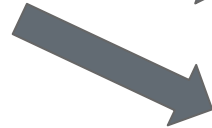
Fails on inequality I -> Only for home-owners -> rewarding those with the most assets, increasing inequality



Fails on inequality II -> Not targeted at held back regions



Fails on climate I -> will take until 2060 to reach all UK homes.



Fails on climate II -> average investment in home £4,200. A fraction of what's needed (>£10k), so repeat retrofits will be needed.

# Examples by sector



# Improve homes



Image by Robert Rimmell used under Creative Commons licence.

- Expand social housing building towards Shelter's demands (100,000 homes / year)
- Develop offsite manufacturing & support timber industry for construction
- Retrofit all social housing to at least EPC grade C
- Deliver EPCs for every home
- District heating schemes

# Electrify transport



Image by Ed Webster used under Creative Commons licence.

- Build a battery factory to support EV manufacturing
- Renew bus and ferry fleets
- Expand rural EV charging - reaching most rural homes
- Expand and electrify rail network

# Secure renewable energy jobs for the future

- Upgrade ports and shipyards for offshore wind supply chain
- Build manufacturing facilities for offshore (including floating) wind turbines



Image by David Dodge, GreenEnergyFutures.ca used under Creative Commons licence.

# Thankyou!

The full data and report referenced in these slides are available here:

<http://transitioneconomics.net/uk-covid-recovery-infrastructure-jobs-tuc>

**transitioneconomics.net**

**@transition\_econ**

**@mikaminio**