



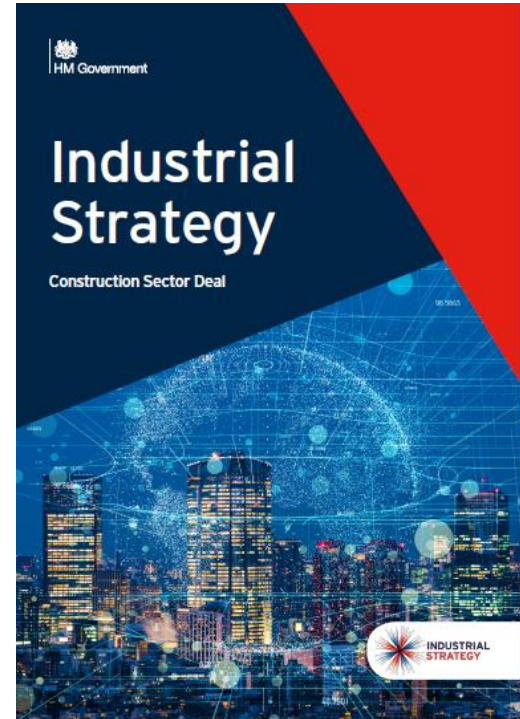
Construction
Leadership
Council

Andy Mitchell

co-chair, Construction Leadership Council

CLC's purpose

- Lead the delivery of the Construction Sector Deal
- 'Convene and communicate' across the construction sector by working with related initiatives
- Build the case and an evidence base for future sector deals / collaboration between industry and Government



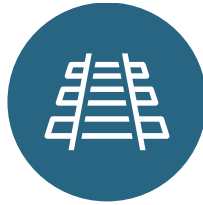
Five Key Commitments



Ideas



People



Infrastructure



Procuring
for value



Places



We account for
9%
of GDP

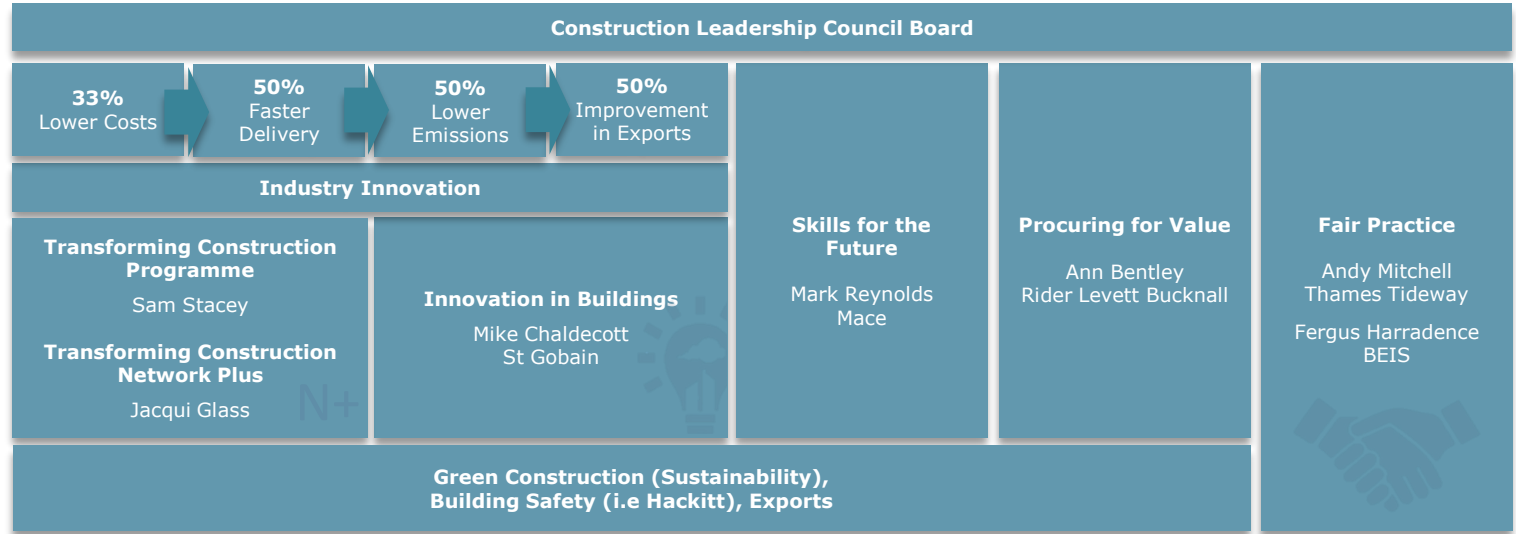


We employ
2.6 million
people



We create
turnover
In excess of
£100bn

CLC workstreams and structure



CLC Advisory Group

- ICE - Nick Baveystock
- CITB – Sarah Beale
- BPF (British Property Federation) – Sam Bensted
- CPA – Peter Caplehorn
- Skanska – Gregor Craig
- RIBA – Adrian Dobson
- DFTG (Digital Framework Task Group) – Mark Enzer
- Cast – Mark Farmer
- UCL – Jacqui Glass
- RICS – Alan Muse
- BuildUK – Suzannah Nichol
- LoR – Ray O'Rourke
- CE – Alison Nicholl
- CECA – Alasdair Reisner
- CSIC – Jennifer Schooling
- FMB – Brian Berry
- HBF – John Slaughter
- Transforming Construction Alliance – Sam Stacey
- i3P – Mark Thurston
- ACE – Hannah Vickers
- CIC – Graham Watts
- Heathrow Expansion – Phil Wilbraham
- ICG (Infrastructure Client Group) – Dale Evans
- RAEng – Dr Andrew Clark
- NIC -
-



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Council

Workstream Progress

£170m

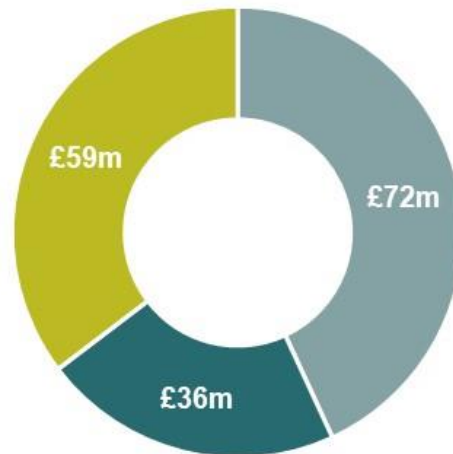
Government
funding

£250m

Matched industry
funding

4 years
of funding

Sustainable
long-term model



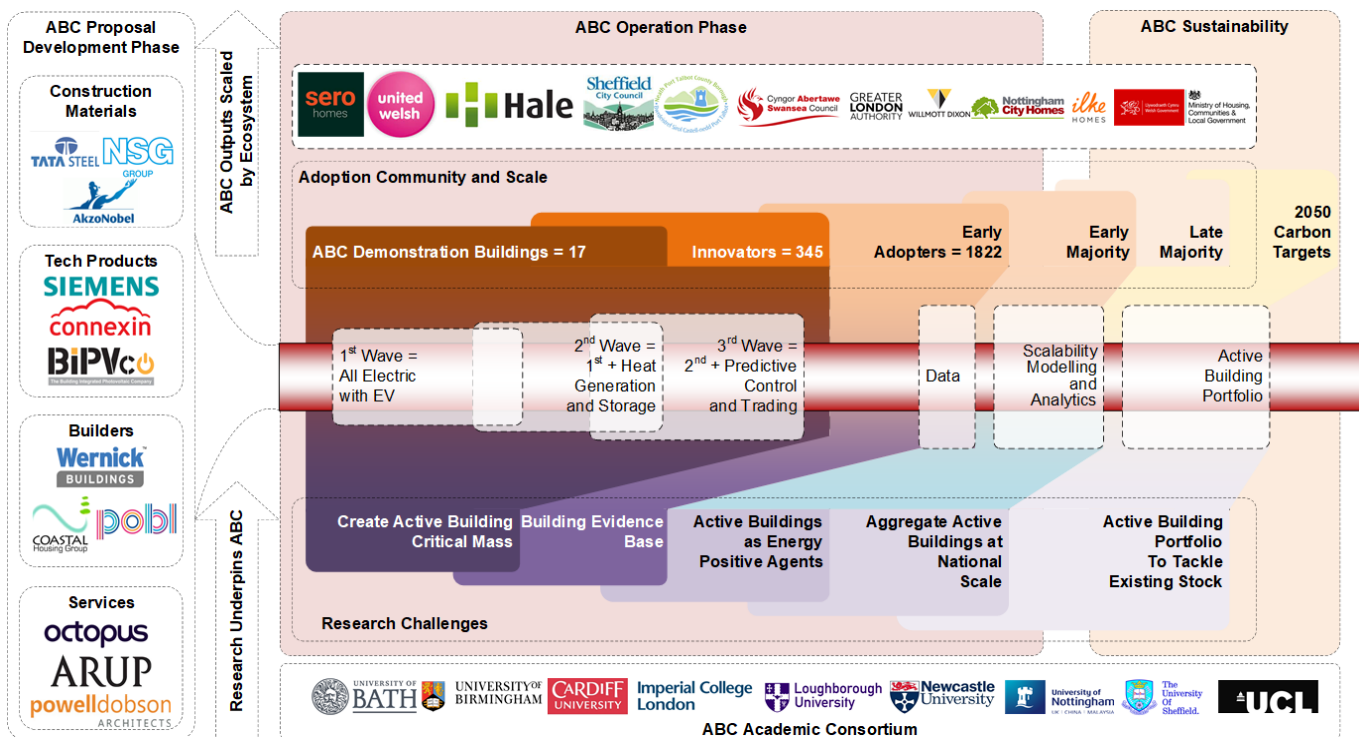
- Construction Innovation Hub
- Active Building Centre
- R&D Projects



Active
Building
Centre



Active
buildings



£170m

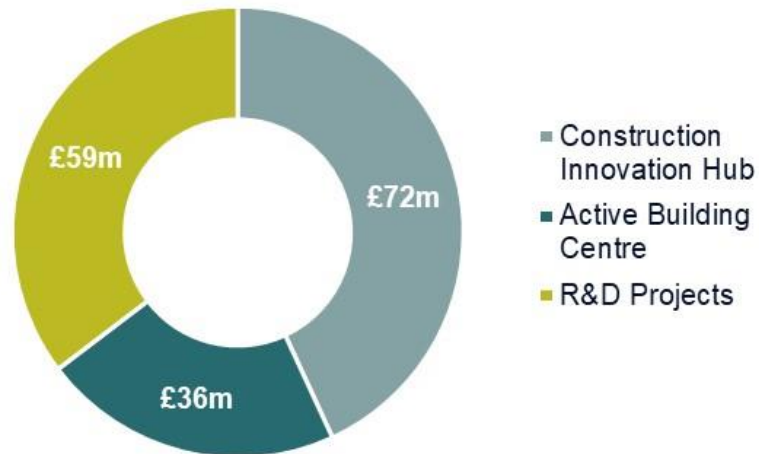
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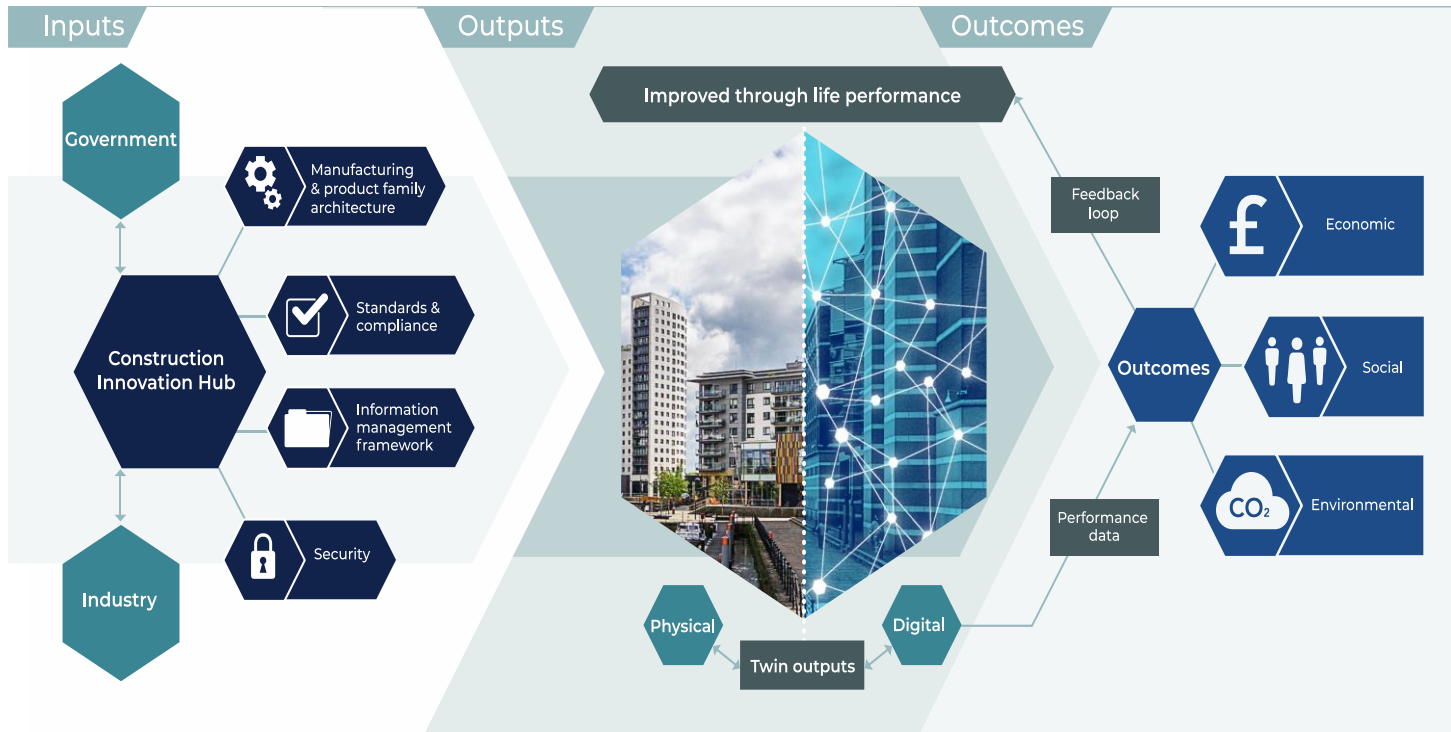
Matched industry
funding

4 years
of funding

Sustainable
long-term model



Standard
products and
processes



£170m

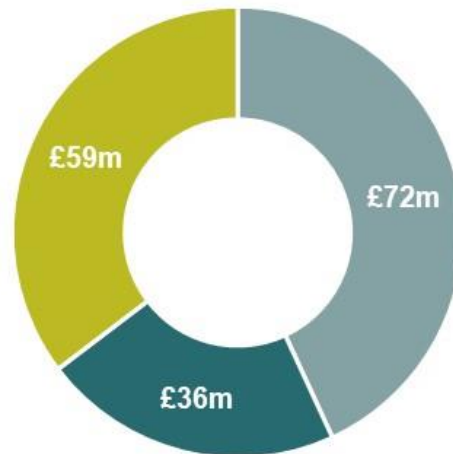
Government
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£250m

Matched industry
funding

4 years
of funding

Sustainable
long-term model



- Construction Innovation Hub
- Active Building Centre
- R&D Projects

R and D projects

Information

- Data interoperability
- Digital integration platform
- From BIM to machine control
- AR for efficiency
- IoT for site plant
- IoT and concrete curing
- IoT and thermal performance
- LIDAR for cranes

- Robot clusters

Machine learning

- AI and logistics
- AI for programme prediction
- AI and BIM
- AI and component tracking
- AI for site safety
- AI and progress monitoring
- AI for quality
- Alexa for sites

- 3D concrete printing

Product and process

- Panelised housing
- DfMA for housing
- Modular Homes
- Industrialised homes
- Energy active prefab
- Smart piles
- Frame optimisation
- Modular steel

- Non-prismatic concrete

Round 1

• Mass House Building	£630k	• The Learning Camera	£190k
• Automate progress reporting	£370k	• AI schedule analysis	£640k
• Automated construction	£700k	• Big data, auto-BIM	£600k
• BIM IoT analytics	£175k	• HIPER Pile	£600k
• Offsite steel modules	£105k	• Knowledge based dFMA houses	£710k
• Digitally connected supply chain	£330k	• AEC Delta mobility (data spec)	£725k
• Automated Roof Tile factory	£190k	• Concrete curing predictions	£450k
• Hybrid insulated house system	£115k	• Digital planning & s/chain	£575k
• LIDAR for crane operations	£40k	• Automated DfMA generator	£500k
• Automated materials plan	£310k	• Digital design built structures	£200k
• Zero defects adaptive learning	£200k	• Insitu thermal measurement	£200k
• Intelligent DEFMA assets	£200k	• AIMCH (CSIC/MTC...)	£3,940k
		• Augmented reality - productivity	£650k

R & D Projects



- UK's largest house builder and second largest social landlord coming together with their supply chains to industrialise housebuilding
- Using challenge approaches to reduce cost, boost productivity (40% target), increase safety onsite, improve quality (75% less rework) and 30% faster
- Bringing in wider housebuilding community, and establishing data to prove the business case

Impacting 35,000 homes a year

<https://www.aimch.co.uk/>



R&D Competition Round 2



£36m total R&D funding available

Two competitions will run in parallel:

£26m Demonstration fund

£10m Collaborative R&D fund

Spending Profile:

£27m in FY20/21

£8m in FY21/22

£26m Demonstration

- Opens 28th August 2019
- Closes 6th November 2019
- Projects start 1st April 2020

£10m CR&D

- Opens 28 August 2019
- Closes 30th October 2019
- Projects start 1st April 2020

THE TRANSFORMING CONSTRUCTION NETWORK PLUS (N+)

Stimulating participation, facilitating collaboration, and encouraging exploration

The N+ unites construction's academic and industrial communities to create a new research and knowledge base, dedicated to addressing the systemic problems holding back the sector.



Imperial College
London



More information about the N+ can be find:

www.bit.ly/transforming-construction-network-plus

The aim of the N+ is to provoke, enable and amplify
innovation, through four main objectives:

- Knowledge
- Community building
- Business models
- Investment and legacy

i3P INNOVATION INVESTMENT PRIORITIES

Summary Report





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Skills for the future



3 focus areas

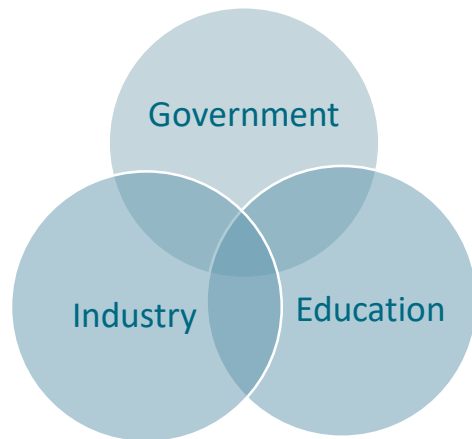
1 Attract, Recruit and Retain

2 Apprenticeships and Training

3 Future Industry



Skills Alignment Workshop - 12th July



Department for
Business, Energy
& Industrial Strategy

Department
for Education

citb

BUILDUK
Leading the Construction Industry

ceca

NFB
National Federation of Builders

HBF
HOME BUILDERS FEDERATION

FEDERATION OF
MASTER BUILDERS
fmb.org.uk

ace

RICS

ice
Institution of Civil Engineers

**ROYAL ACADEMY OF
ENGINEERING**

Scottish
Decorators'
Federation

bre

cpa | construction
products
association

Heathrow
Making every journey better

mtc
Manufacturing
Technology Centre

BACH
BRITISH ASSOCIATION OF
CONSTRUCTION HEADS

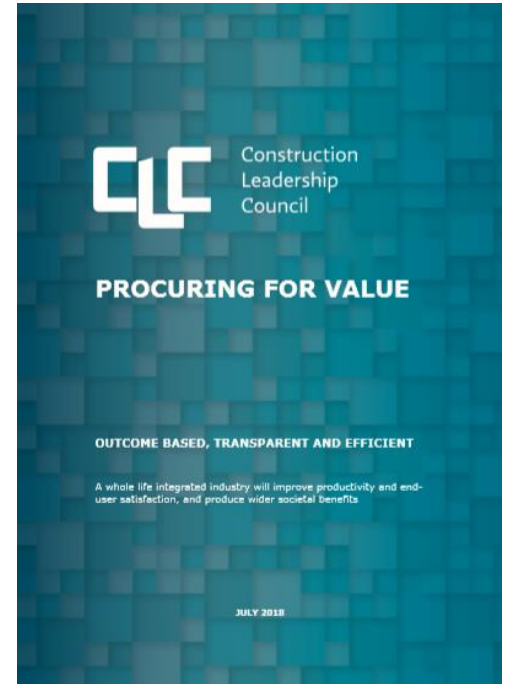
acc
ASSOCIATION
OF COLLEGES



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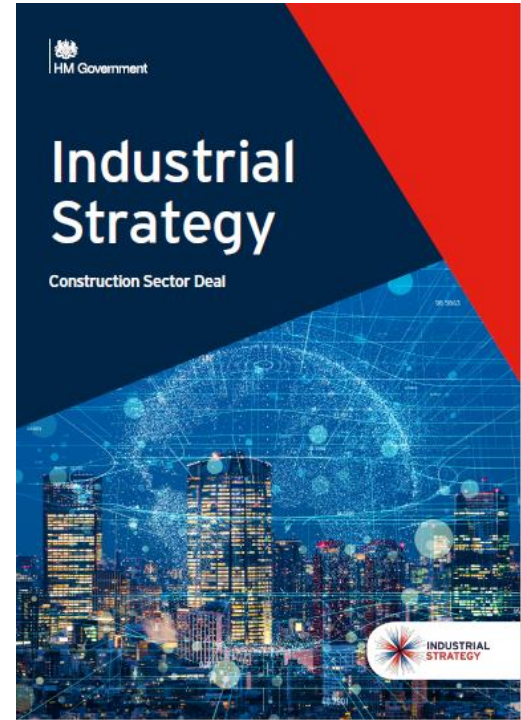
Procurement for Value

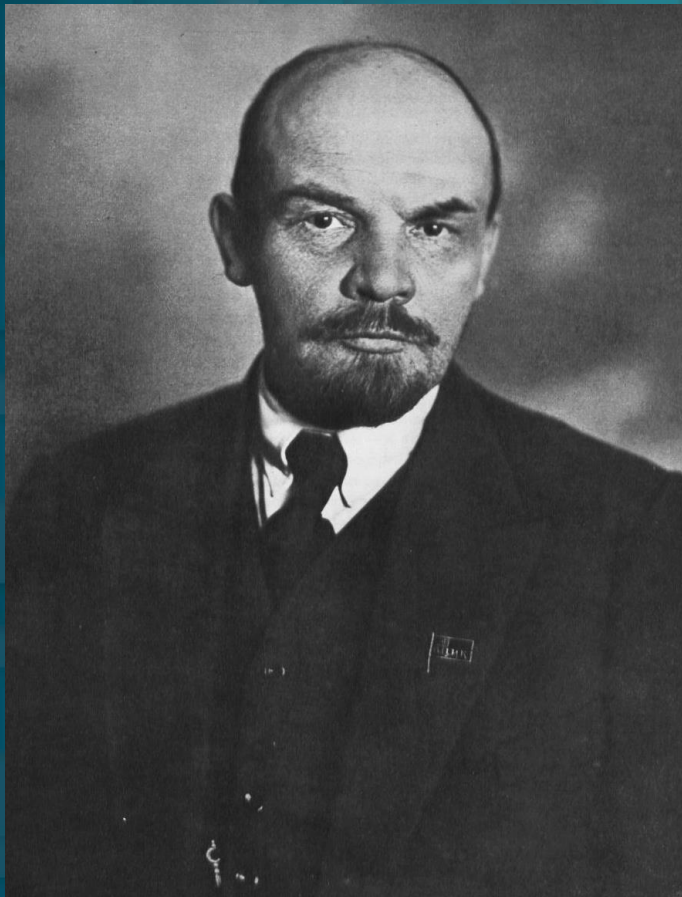
- Infrastructure and Projects Authority's
Transforming Infrastructure Procurement
- Infrastructure Client Group's
Project 13
- CLC's
Procuring for value
Fair Practice



CLC's purpose

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**There are
decades where
nothing
happens.....**

**...and there are
weeks where
decades happen**



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