

Wales Gene

Park...

helping Wales build an infrastructure for Next Generation Sequencing that supports **genomic medical research** in the era of **Precision Medicine**

Kevin Ashelford • Karen Reed • Sarah Edkins

Health and Care Research Wales •
Future-proofing research in Wales
Thursday 25th October 2018

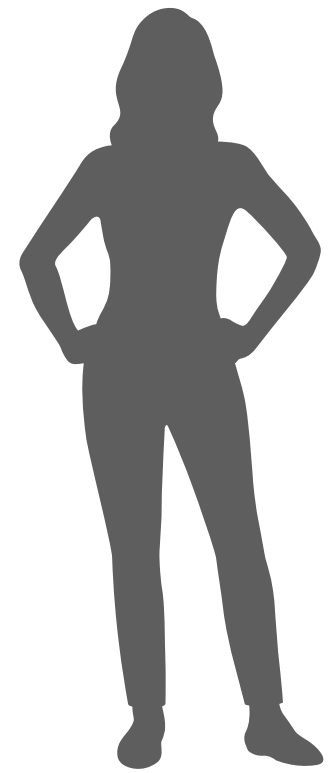


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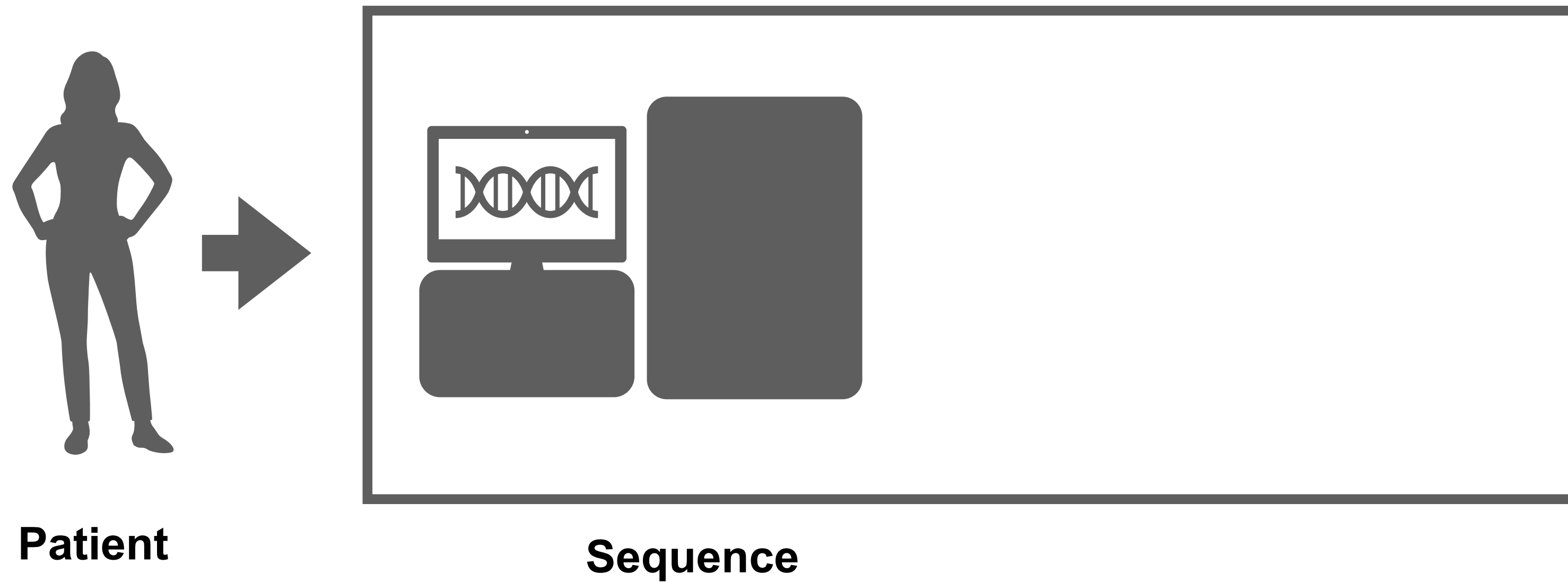
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Patient

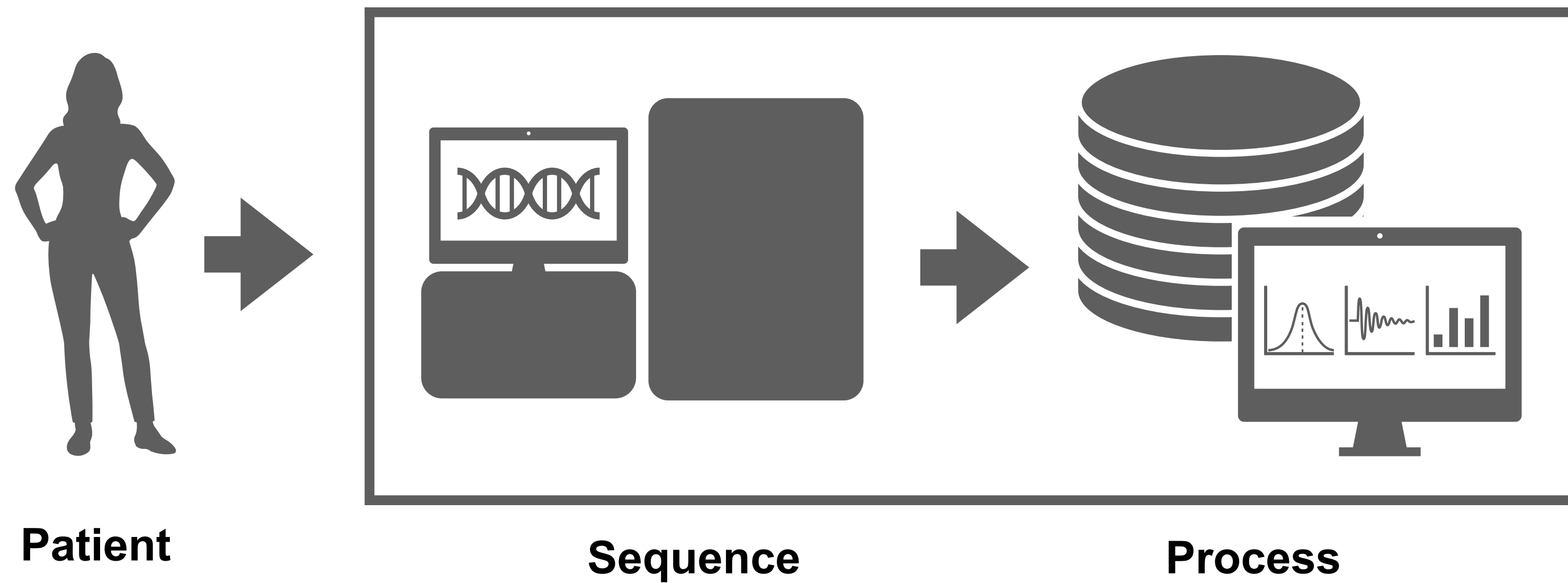
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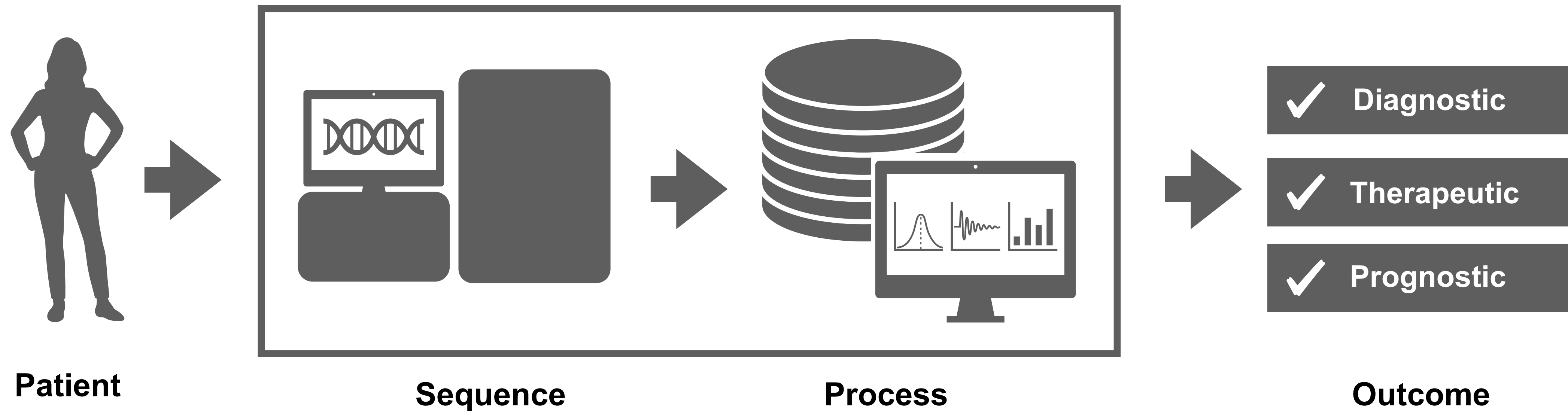
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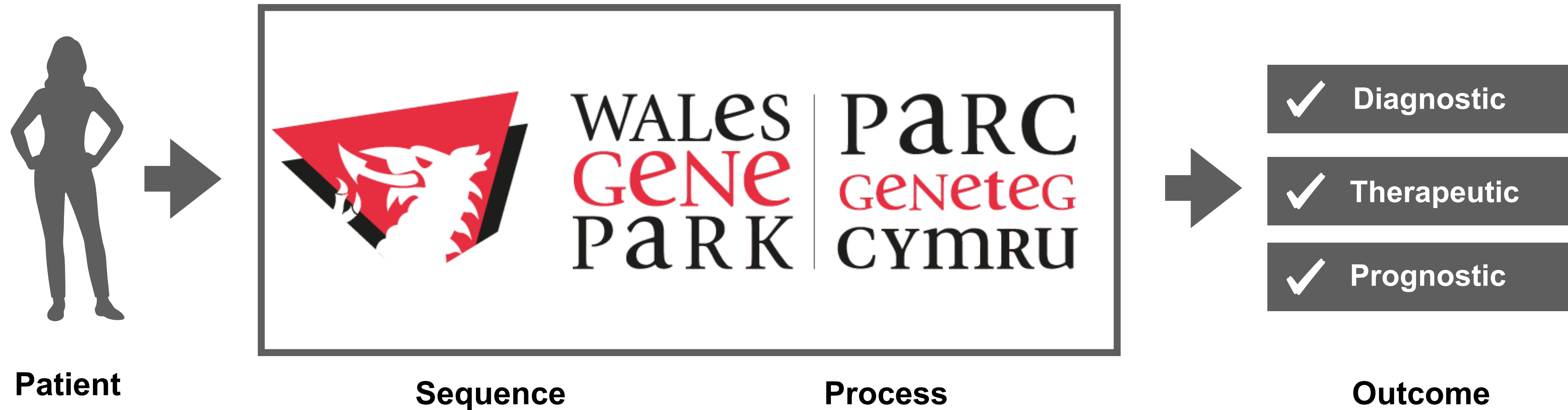
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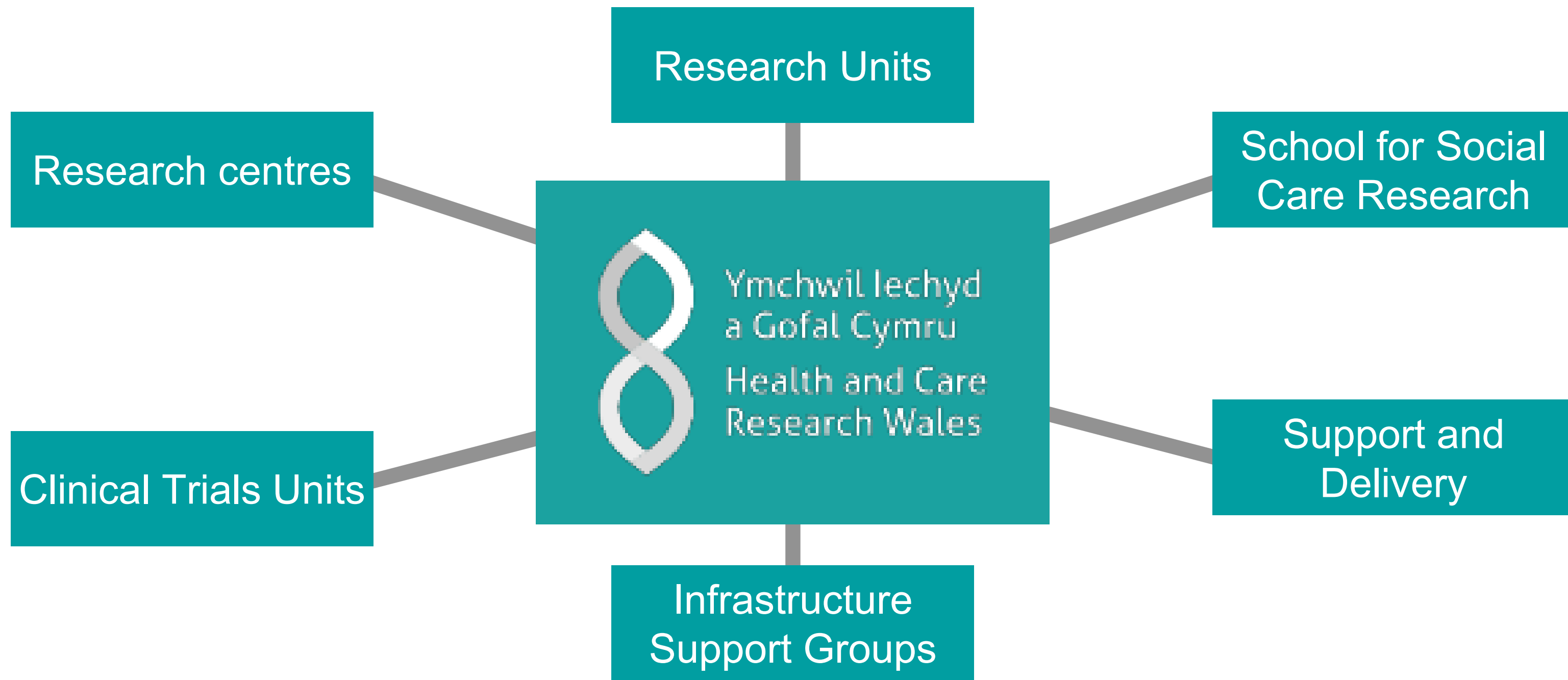


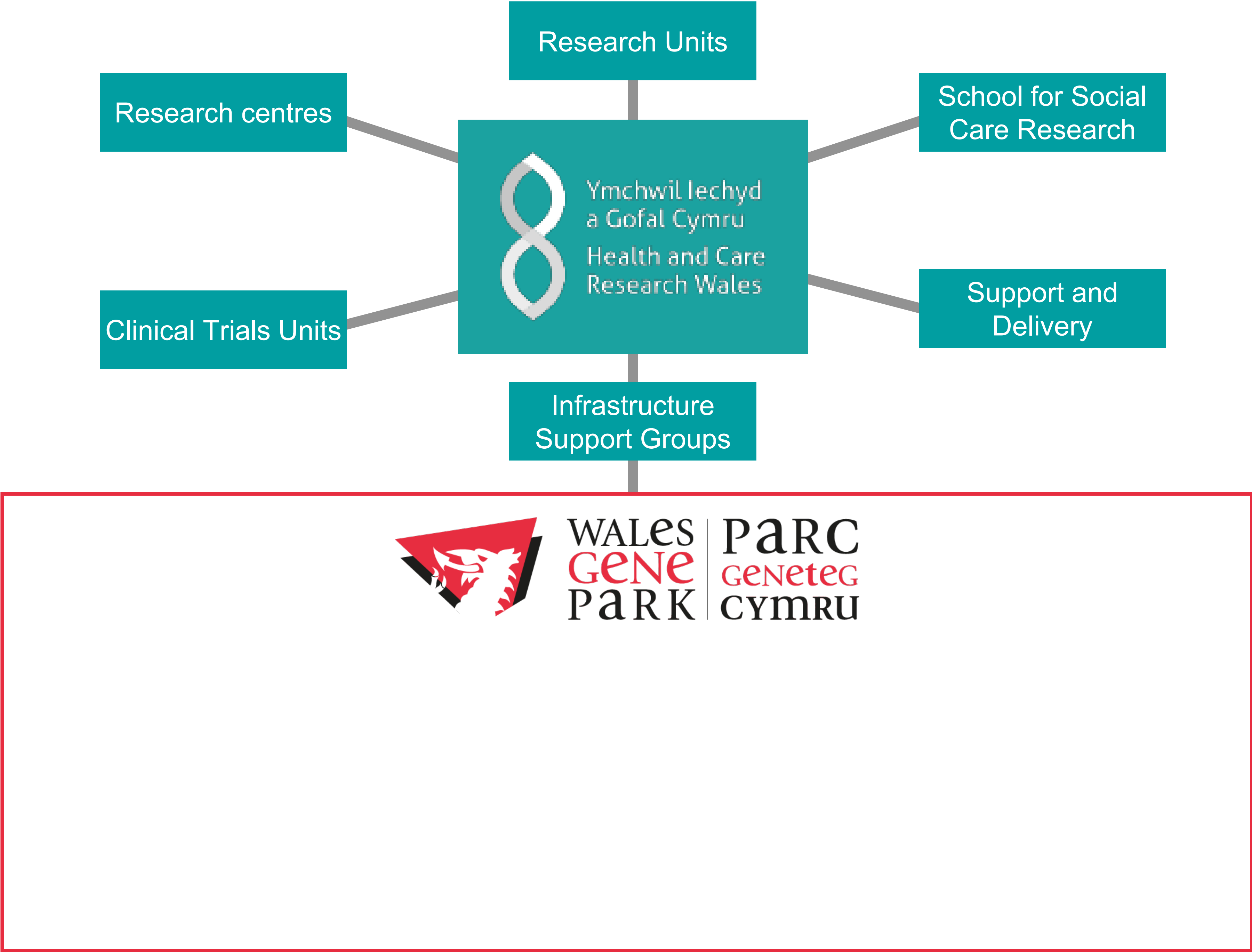
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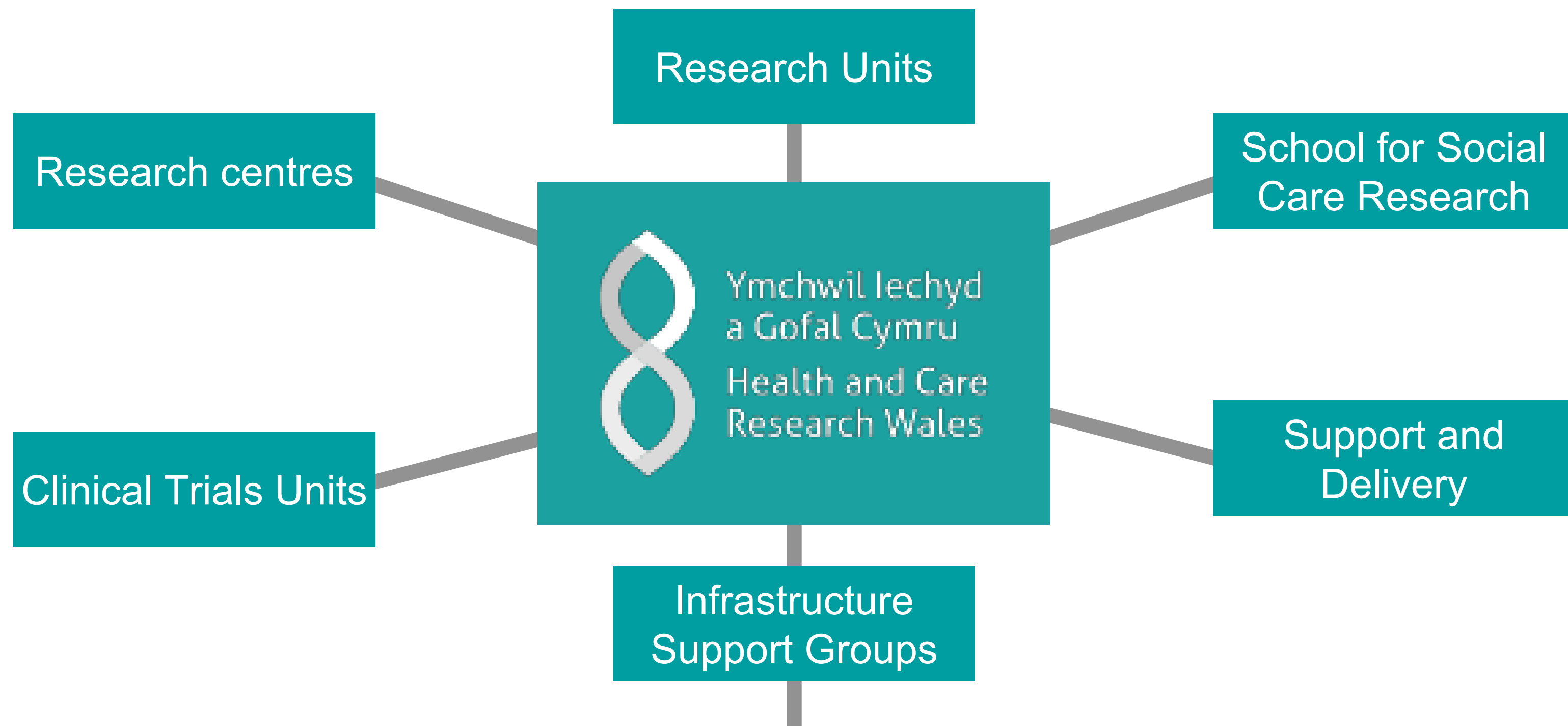
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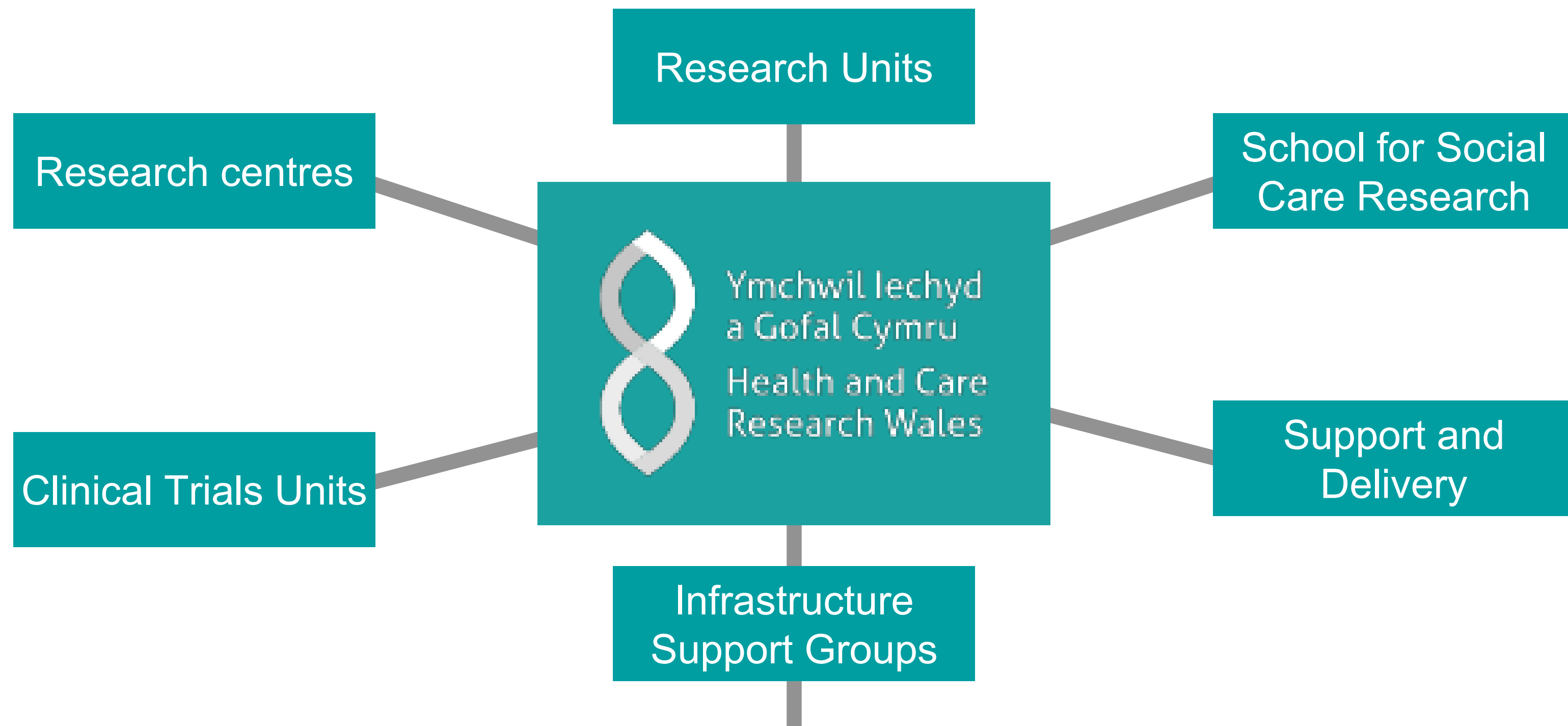






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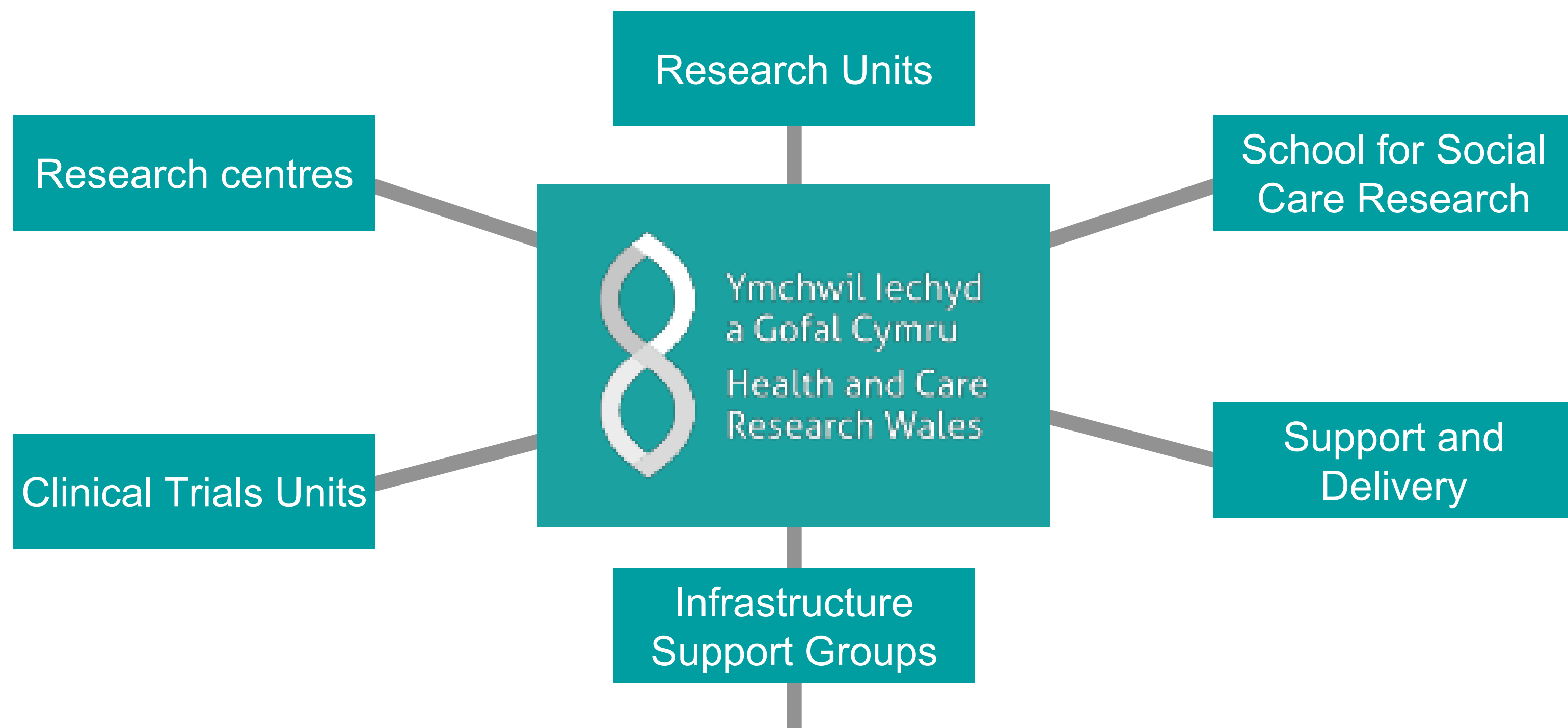
Our mission



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- to promote and facilitate Welsh medical genetic and genomic research and its application to improve health and wealth in Wales.



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Our mission

- to promote and facilitate Welsh medical genetic and genomic research and its application to improve health and wealth in Wales.
- to engage the public and health professionals to improve understanding of the opportunities and challenges arising from genetics and genomics.



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Work package 1

Genomic editing
and transgenics



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Work package 1

Genomic editing
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Work package 2

Genomic Facility



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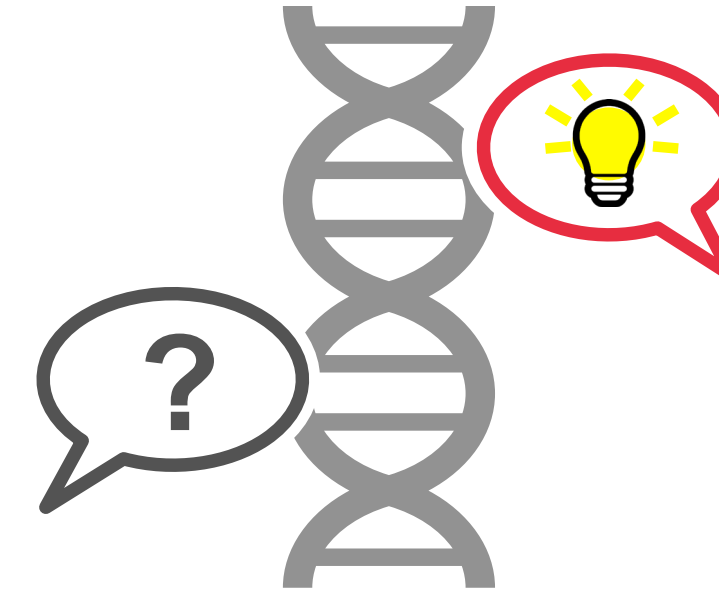
Work package 1

Genomic editing
and transgenics



Work package 2

Genomic Facility



Work package 3

Education and
Engagement



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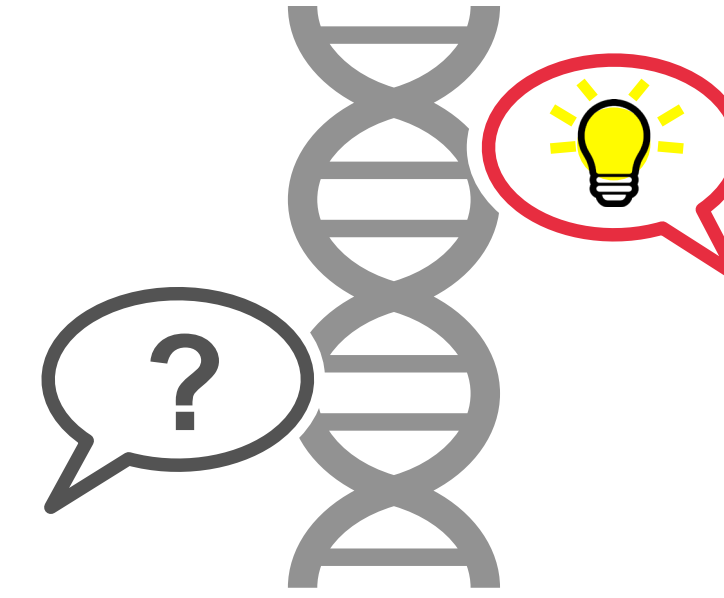
Work package 1

Genomic editing
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Work package 2

Genomic Facility



Work package 3

Education and
Engagement

Genomic medicine infrastructure

Genomic medicine infrastructure



Sequencers

Genomic medicine infrastructure



Sequencers



Compute

Genomic medicine infrastructure



Sequencers



Compute



Storage

Genomic medicine infrastructure



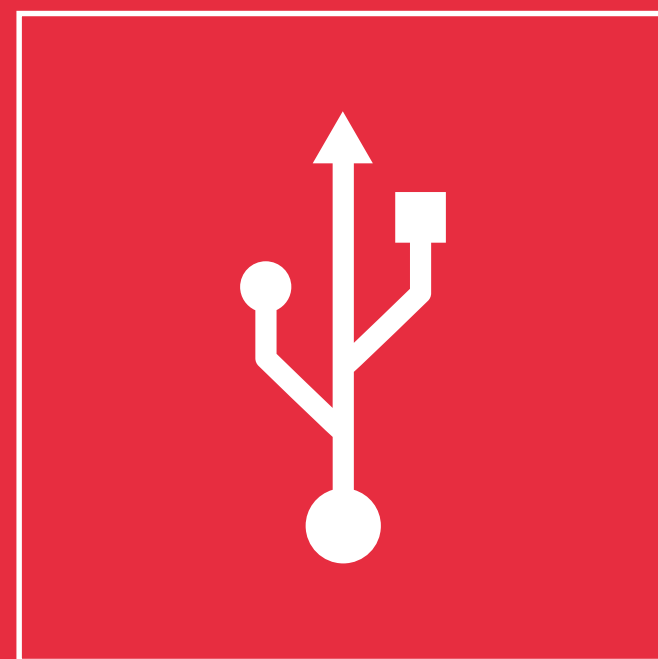
Sequencers



Compute



Storage



Networking

Genomic medicine infrastructure



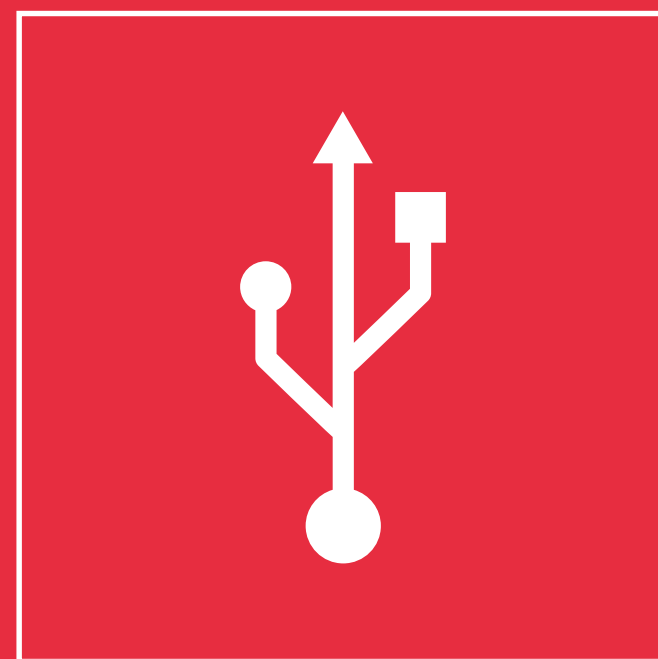
Sequencers



Compute



Storage



Networking



**Supporting
infrastructure**

Genomic medicine infrastructure



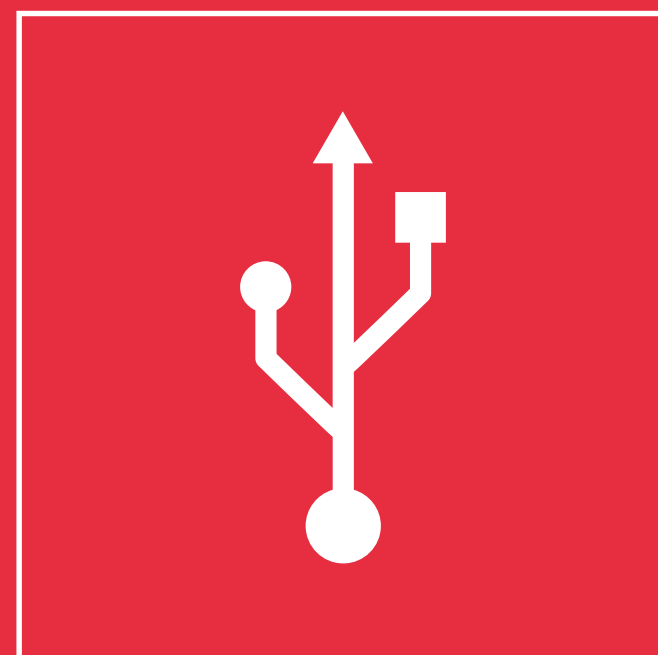
Sequencers



Compute



Storage



Networking



**Supporting
infrastructure**



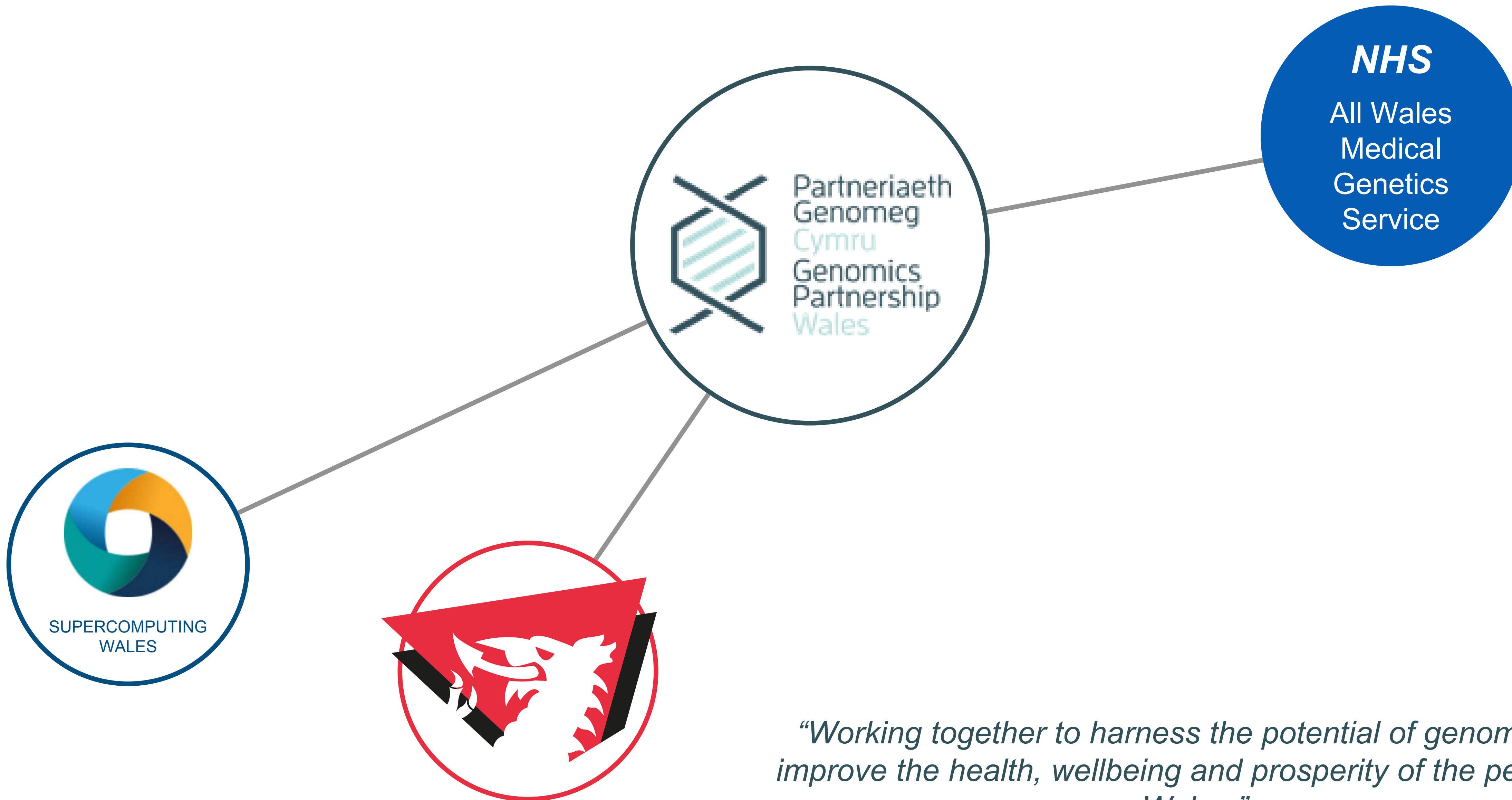
**Information
governance**



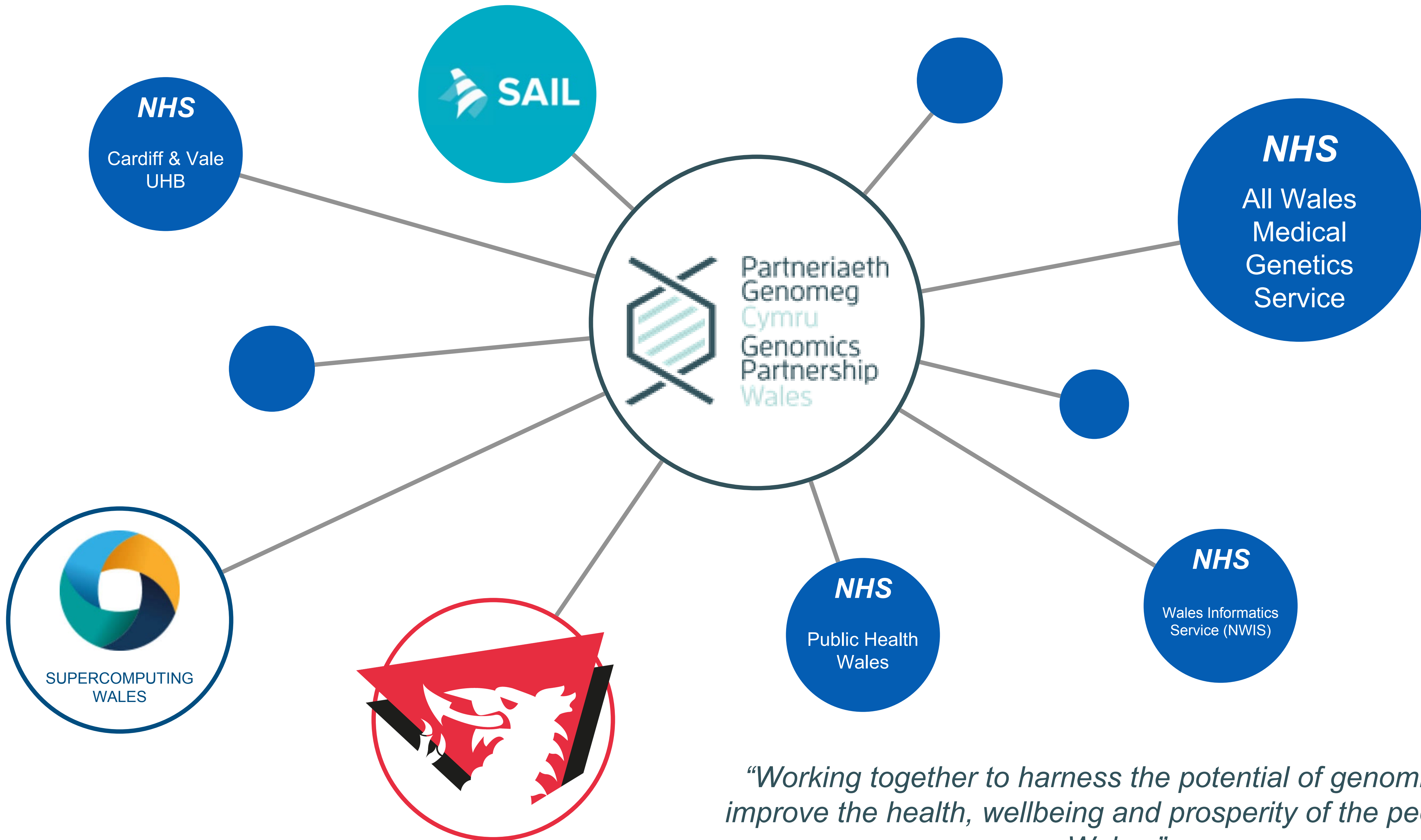
“Working together to harness the potential of genomics to improve the health, wellbeing and prosperity of the people of Wales.”



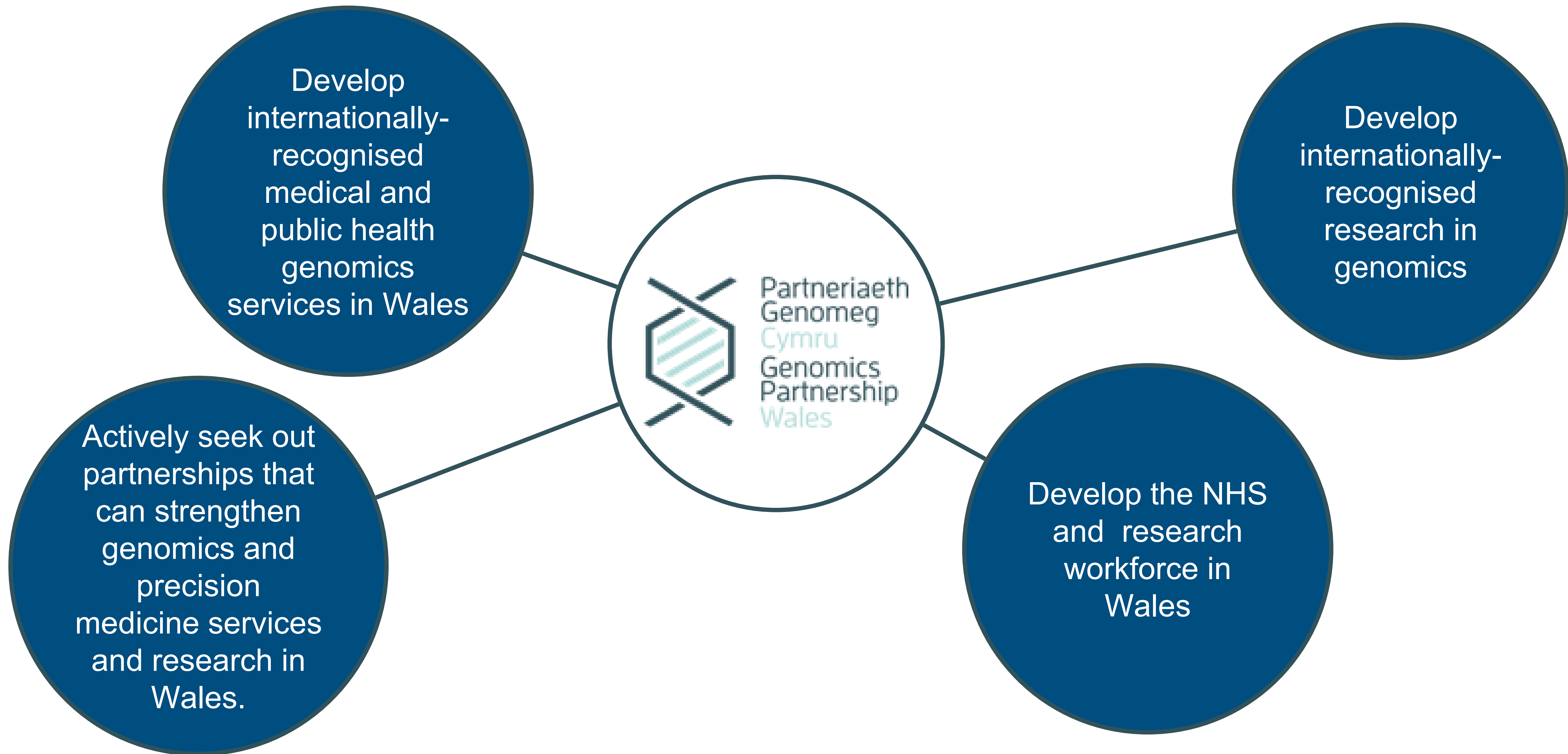
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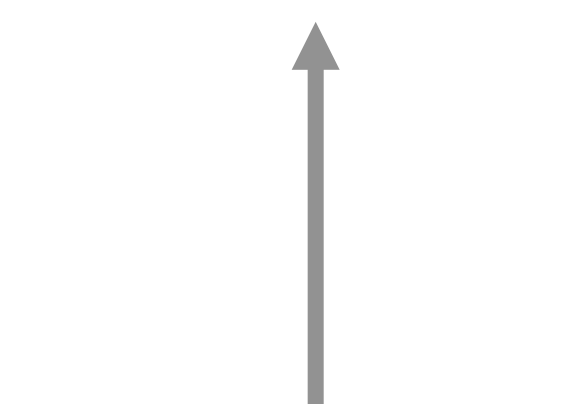
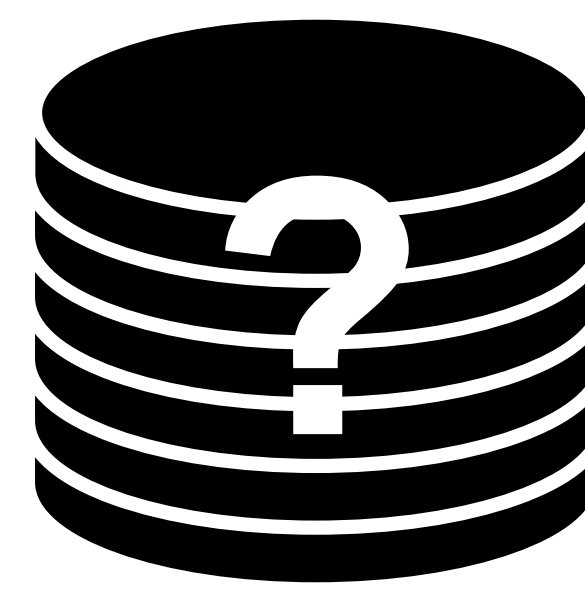
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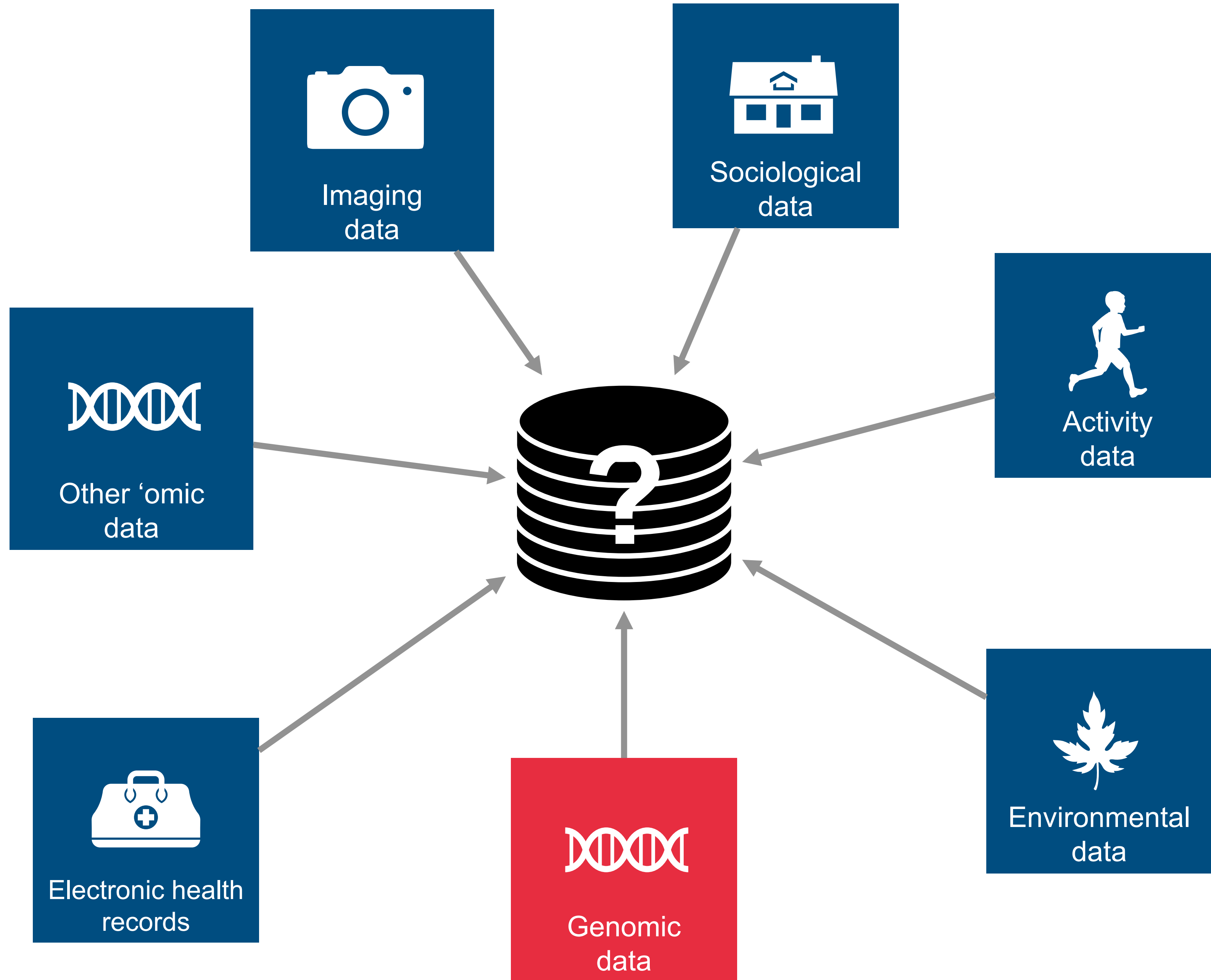
The strategy recognises that data and resources need to be shared between healthcare and research if the promise of precision medicine is to be realised.

The data challenge





Genomic
data



The resourcing challenge



NOW



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Genomics IT**

NOW



**AWMG
Genomics IT**

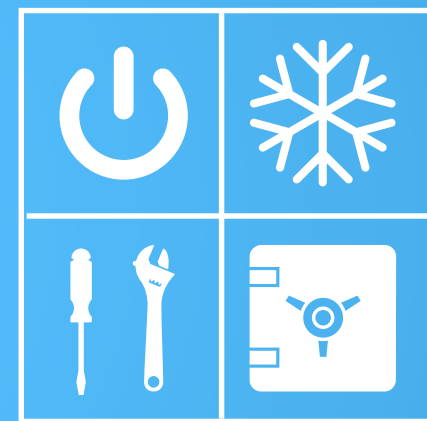


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**SHARED
HUMAN GENOMICS
RESOURCES?**



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Genomics IT**

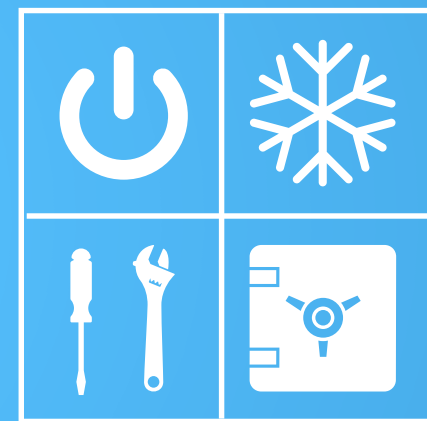
NOW



FUTURE?



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**SHARED
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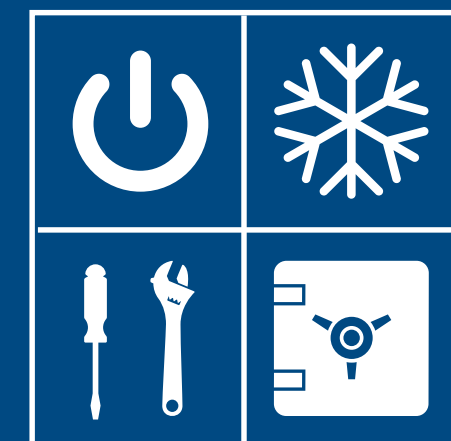
FUTURE?



**AWMG
Genomics IT**



**SHARED
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RESOURCES?**



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Genomics IT**

Future?



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In partnership with

