



ARCH Portfolio Summary Document:

*Working to improve the health,
wealth and wellbeing of
South West Wales*

power of partnership



→ **A Regional Collaboration for Health (ARCH)** is a partnership between ABM and Hywel Dda University Health Boards and Swansea University.

→ ARCH is a totally unique proposition for Wales, built on an ethos of collaboration. We have chosen to work together to find regional and innovative solutions to enduring challenges.

→ As three organisations who are embedded in the lives of one million people, a third of the population of Wales, every single day we see **ARCH** as our opportunity to take immediate action on pressing issues and as a vehicle to develop long-term plans for regional transformation.

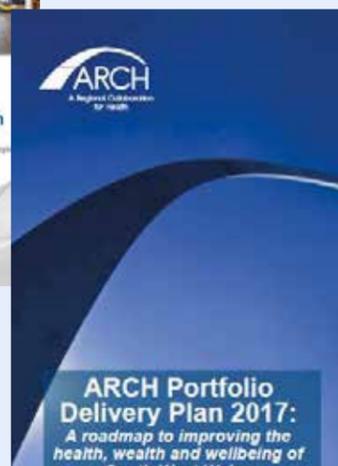
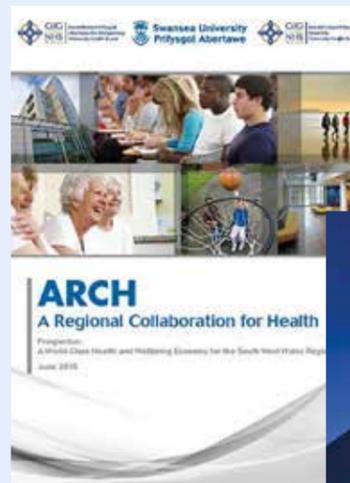
Following the submission of the ARCH Prospectus to Welsh Government in 2015, we are now preparing to submit the ARCH Portfolio Delivery Plan (PDP) in February 2017.

The ARCH PDP is essentially a roadmap which describes how we will deliver our complex portfolio of programmes.

The PDP sets out in more detail the critical path to implementing specific proposals within each of the identified programmes of work.

The ARCH Portfolio is made up four programmes, they are Skills & Education, Service Transformation, Wellbeing and Research, Enterprise & Innovation.

Each programme is made up of many projects all aimed at improving **the health, wealth & wellbeing of South West Wales**.



our vision



“ARCH recognises that by jointly planning our approach across a region of one million people, we will amplify the advantages and provide solutions to persistent challenges which have vexed the region”

→ We believe a joined up, regional approach is the only way we will be able to deliver meaningful change to help **improve the health, wealth and wellbeing of South West Wales**;

→ **ARCH is the vehicle which allows us to regionally plan our approach to tackle the ongoing issues of:**

- Recruitment, retention and workforce development;
- Service performance and configuration;
- Ongoing financial pressures;
- Economic decline; and,
- Improving the health and wellbeing of people living in our region.

→ **We see regional planning as key. ARCH already has the impetus, capacity**

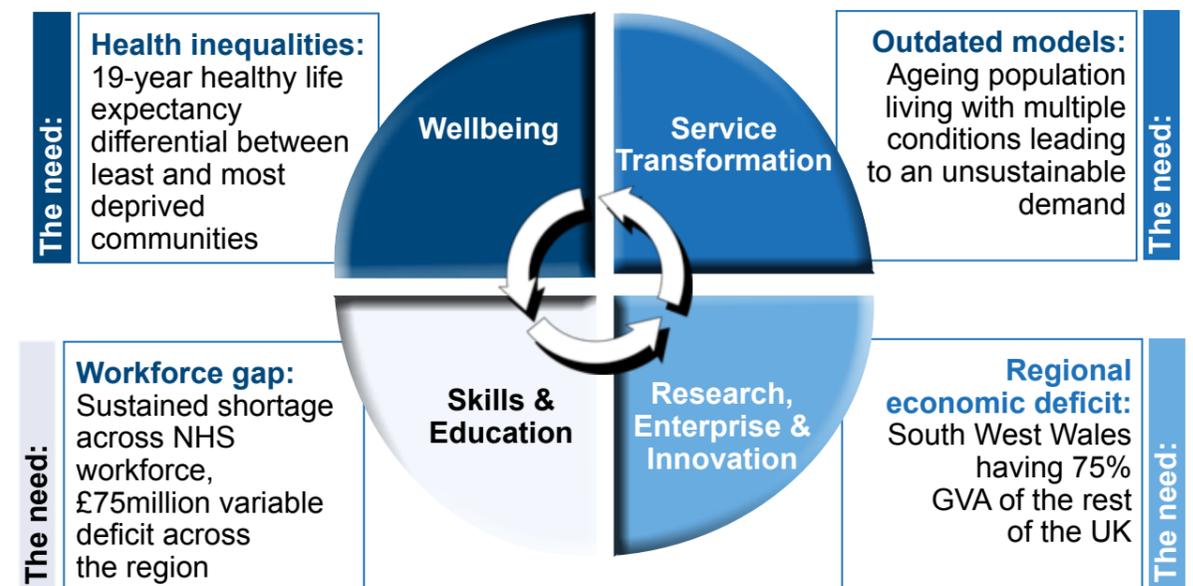
and capability to develop joint, regional solutions immediately;

→ We are taking advantage of the strong and aligned local leadership ARCH has already brought together under various work streams, such as the Swansea Bay City Deal bid. ARCH has had a galvanising effect and as such health is now at the heart of the region’s economic growth plans;

→ **We aim to reduce the cost to the public purse over time as a healthier population reduces pressure on the NHS**

→ Through ARCH we will have greater opportunities to respond swiftly and effectively to the needs of residents and really transform services for them.

The 4 ARCH programmes of work with examples of current need within the region:



programme aims

Skills & Education

Attract, retain and develop next generation of health & life science staff:

- We will implement a series of measures across the region to address immediate workforce challenges
- Re-orientate the education system to deliver a workforce with right skills to deliver next generation healthcare
- We will increase opportunities to support the retention of those who train within the region to work within our two health boards

Service Transformation

Create healthcare system fit for 21st Century and the lives we lead today:

- We will create a system built around prevention to help people stay well for longer and keep them out of acute healthcare settings
- We will be innovative and have a digital first approach to services
- We will improve access to high-quality inpatient care through our network of regional health campuses as appropriate

Wellbeing

Improving the wellbeing of our population across the entire region:

- We will contribute to the reduction of inequalities in health and wellbeing between population groups
- We will affect a tangible step-change in our approach to prevention and early intervention across all ARCH programmes
- We will reduce demand on services by influencing the key social determinants of health and supporting people to stay well in communities

R, E & I

Drive investment into this region and create new job opportunities:

- ARCH will capitalise on the growing health and life science sector
- We will develop and retain life science enterprises to create a local cluster of innovation & enterprise to attract investment to region
- Harness the region's one million population to become a testbed for research and development

our progress

Here is a snapshot of the range of work already undertaken within ARCH since March 2016:

- Designed and planned the multi-million pound Llanelli Wellness and Life Science Village in Carmarthenshire;
- Opened and first service delivered through the doors of the innovative Health & Wellbeing Academy led by the College of Human and Health Science at Singleton Campus;
- Established the Physician Associate post-graduate qualification in Swansea University's Medical School - one of only two of its kind in Wales - and welcomed 15 students in October 2016;
- Established ARCH (through the Internet of Health & Wellbeing strand) as a key component of the £500million Swansea Bay City Region City Deal bid;
- Completed master site plans for Morriston and Singleton Health Campuses to enable the first phase of development;
- Secured £13.5million of investment, including £6.7million from Welsh Government, for the Agor-IP project aimed at opening up a pipeline of untapped research into products and services for the commercial market. Recruitment of IP team in progress and appointments due soon. This will allow greater expansion as Singleton and Morriston grow, supporting development of joint IP policy;
- First student intake on the bespoke Further Education Talent Bank programme aimed at encouraging local 16+ youngsters into STEM study;
- Established Wales's first Fujitsu Innovation Hub at Swansea University's School of Management at the new £450million Bay Campus and secured investment from Fujitsu and Intel for Talent Bank Student Ambassador Programme;
- Welcomed The Bevan Commission to Swansea University's School of Management at Bay Campus;
- Agreed need for nine regional service solutions for the following areas, with project boards set up or being established to drive work forward: Vascular; Cardiology; Neurology; Dermatology; Imaging and Interventional radiology; stroke services; Ophthalmology; Non-Surgical cancer and Pathology and prepared Strategic Outline Cases (SOCs) for Pathology, Orthopaedics;
- Established the clinical model for Singleton and Morriston Health campuses;

Case study: Unlocking innovation



BACKING: Professor Mark Drakeford with Professor Marc Clement and Gerry Ronan, of Swansea University.

The ARCH AgorIP project is aimed at unlocking innovation in the NHS and to provide a support service to drive this innovation and realise the huge value from IP generated across ARCH region.

It will provide a support framework to bring ideas to market and support our health boards in realising their commercial value.

AgorIP will open a pipeline of untapped valuable opportunities to work with researchers and NHS staff to disclose concepts with development potential. AgorIP is a £13.5million EU-supported scheme which brings together clinicians, academics and industry to pioneer research into cutting-edge technologies. Led by Swansea University through ARCH, AgorIP will work with NHS and industrial collaborators across North and West Wales and the South Wales Valleys to turn innovative research into new products, processes and services.

The project is backed by £6.7million from Welsh Government and funding from Swansea University. An example of how this works in practice is the work being carried out by ABMU's Rehab Engineering Unit. Dr Lorna Tasker and her team are developing an app to improve patient care and reduce the huge challenges caused by pressure ulcers. The app is being developed in partnership with Welsh Government and Fujitsu and will provide expert advice to prevent ulcers getting worse and to promote healing without surgery.

- Agreed clinical model for regional network of health & wellbeing schemes with Strategic Outline Case (SOCs) in development for 6-7 schemes;
- Established advanced administrator project – pilot role based within clinical setting to free up clinical time of clinical staff – role piloted



our progress

benefits & impact

- within Bronglais Hospital, (job spec developed etc.) and case study in development to allow for regional scaling up;
- Formed an initial project investigation team formed to develop integrated working roles across NHS/ Local Authority boundaries;
 - Set up an Apprenticeships project team and agreed to develop appropriate clinical and non-clinical apprenticeship role across the region;
 - Developed and rolled out a Staff Nurse Development Programme – module developed to improve the basic skills of newly registered nurses;
 - Designed and established ARCH-i as a regional service improvement mechanism. Project team and plan developed to provide an online forum for improvement science;
 - Established project board to deliver Health Technology Centre and appointed a project manager to run the project. Applications being accepted and waiting list for expansion is being managed. WEFO funding applied for to enable expansion;
 - Joint Clinical Research Facility (J-CRF) Regional expansion: Established unit on Singleton site and scoping expansion on same site and potential at Morriston.

Case study: Talent Bank



ON THE WARDS: Talent Bank students at Morriston Hospital during their induction week.

Talent Bank, is being delivered through the ARCH partnership, it is a full-time education programme for young people aged 16+ wanting to study STEM A-levels or vocational and technical qualifications.

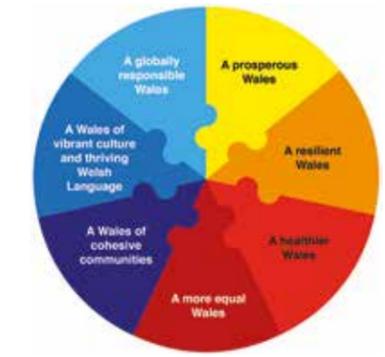
The project is a partnership with FE and the ILS at Swansea University, and is a bespoke education and skills programme specifically designed to support the evolving life and health science sector in the region.

ARCH has fostered relationships between Talent Bank and Fujitsu and Intel to ensure the local students who are part of the project can be immersed in an innovation-rich environment working with leading industry, health and life science partners. Fujitsu have supported the project by setting up an Innovation Hub to provide students with digital skills development. The project will ensure young people graduate with the skills to progress in the health sector.

“ARCH is a unique proposition which can provide a pioneering framework to deliver Welsh Government’s commitment to create a Wales which is prosperous and secure, healthy and active, ambitious and learning, united and connected”



To deliver Welsh Government’s key priorities ambitious measures are required, aimed at making a difference to everyone, at every stage of their life which will involve working across traditional boundaries.



ARCH’s ethos is based on collaboration to find innovative ways of working. The Wellbeing of Future Generations Act offers Wales a unique opportunity to work collectively as a region in a meaningful way and with a long-term view.

stubborn issues our communities face, issues which are often complex, long-term and require a multi-partner approach to resolve”.

The act sets out five ways of working when making decisions which could impact people living in Wales in the future. They are: Long Term; Prevention; Integration; Collaboration; and, Involvement. We are ensuring the ARCH portfolio is following these ways of working to help us work together better, avoid repeating past mistakes and tackle some of the long-term challenges we are facing. By looking to the long-term, taking an integrated and preventative approach, and involving and working with others, we will be able to understand better how we can maximise our contribution to the wellbeing goals of Government.

ARCH sees itself as the vehicle to deliver this pioneering legislation and each of the three organisations are seizing the opportunity to work differently and engage with others to develop innovative solutions to the challenges that we face.

The ARCH partners are committed to using the Wellbeing of Future Generations Act in our decision-making to improve our part of Wales, now and over the long term. We recognise that using the Act effectively to make Wales more sustainable means doing things differently. As stated in Taking Wales Forward: “this will not happen overnight, but requires a significant realignment in the way we address the

Case study: Health & Wellbeing Academy

The College of Human and Health Science has opened its Health and Wellbeing Academy at the Singleton campus.

The unique facility opened its doors in January making this the first service to be delivered as part of the ambitious ARCH portfolio proposed for the region.

Their first wellbeing clients were young adults aged 11-16 from the Swansea area. They attended a workshop delivered by Cruse Bereavement Care, in collaboration with the department of nursing and three student nurses from the child field undergraduate nursing programme.



NEW APPROACH: The Health & Wellbeing Academy is up and running.

The ARCH partnership has resulted in the provision of a unique service in Wales that can make a real difference to young people who have suffered a family bereavement.

This is just one service which will be delivered through the Academy, others include audiology, osteopathy and maternal health.

Professor Ceri Phillips, Head of College for Human and Health Science said: “The Academy aims to ease pressure on the health service, particularly for our GPs and on our A&E departments.

“It is a unique approach aimed at improving health & wellbeing across the region through a range of complementary treatments and alternative ways for patients to manage their health and care.”



If every person within ARCH region were to benefit to the extent of 1 additional year of perfect health, the value attached to that was £20,000 and these were generated within 10 years timescale the potential value added would equate to **£14.18bn**



Delivery of the 9 projects within the R,E&I Programme will translate into an additional 2,563 jobs in life science sector within 10 years with an increase in GVA of South West Wales economy by **£347million**



If ARCH Skills & Education Programme projects were to generate a 5% improvement in retention of graduates and those who remain in Wales to pursue their careers; the net benefit generated would be in the region of **£670,000**



benefits & impact

the city deal

Skills & Education

Example projects:

- Graduate Medical Entry;
- Nurse Training (indirect commissioning with WEDS);
- Graduate Nurse Recruitment;
- Overseas Nurse Re-registration;
- GP & Health & Wellbeing Academy;
- Talent Bank.

Benefits:

- ➔ An agreed workforce plan for whole health economy of South West Wales;
- ➔ A stabilised workforce with a significant reduction in the number vacancies in the region;
- ➔ More Welsh domiciled students studying in the appropriate health & life science courses in region;
- ➔ Widened access demonstrated through increase in number of 16- 18 year olds studying/training on health and life science courses;
- ➔ Exploiting life science training opportunities in bioscience, pharmaceuticals and tech such as those in the human genome and genetics;
- ➔ Innovation in diagnostics/treatment/robotics and tech.

Service Transformation

Example projects:

- Develop regional service models including:
 - Cardiology
 - Dermatology
 - Non-surgical Cancer
 - Pathology
 - Stroke
 - Orthopaedics

Benefits:

- ➔ Stabilisation of core clinical services;
- ➔ Accelerate new regional models of integrated care;
- ➔ Enable our network of local hospitals to provide right level of care in the right setting, supported by access to specialist advice and care from the regional acute centre
- ➔ Improved waiting times in Emergency Departments;
- ➔ Improved access to primary care
- ➔ More clinical care locally rather than in hospitals;
- ➔ Reduction in unscheduled care admissions;
- ➔ Reduction of hospital stay once acute care completed.

Wellbeing

Example projects:

- Health & Wellbeing schemes (each individual scheme represents a project)
 - Neath
 - Bridgend
 - Swansea
- Plus currently working through a number of Hywel Dda area schemes
- Social Impact Bond developed

Benefits:

- ➔ Providing an objective, forward looking evidence-base and impact measurement to inform all ARCH projects;
- ➔ Addressing key social determinants and inequalities in health and wellbeing, through the development of health and wellbeing schemes across the region;
- ➔ A series of individual schemes networked together across the region, providing seamless access to services closer to home, helping people stay well in their communities and avoiding inappropriate visits to hospitals.

R,E & I

Example projects:

- Phase 1 of the Singleton Health Campus specifically Health Technology Centre (HTC);
- Phase 1 of Morriston Health Campus specifically ILS@Morriston;
- Initiate the development of ILS in the Hywel Dda region;
- Establish Precision Medicine Catapult satellite;
- Expand IP Commercialisation;
- Regional expansion of the Joint Clinical Research Facility (J-CRF).

Benefits:

- ➔ Support the creation of 2,563 jobs in health & life science sectors in the first 10 years;
- ➔ Increase GVA in the South West Wales economy by £347million in the first 10 years;
- ➔ Develop a further 50 research collaborations between academic, clinical and industrial research partners;
- ➔ Creation of a further 25 new enterprises within the ILS ecosystem, together with significant inward investment;
- ➔ Increase registered IP opportunities;
- ➔ Improve research links across region by expanding the number and breadth of trials open to health boards.
- ➔ Facilitate development of wider/new funding streams, incl private sector investment for research and innovation.

A £1.3billion investment plan for South West Wales will help accelerate the progress of the unique ARCH partnership.



ARCH chair and ABMU chair Professor Andrew Davies said the multi-million pound City Deal would be a welcome boost for the area. Professor Davies said: "The City Deal is crucial for this region. The deal will help us deliver projects within the ARCH portfolio."



The City Deal bid has seen 4 local authorities, 2 health boards and Higher and Further Education come together with the private sector to secure a funding package which will help boost the economy, create new jobs and improve healthcare in this part of Wales.

The bid is made up of three elements – energy, economic growth and health and wellbeing. ARCH (A Regional Collaboration for Health) is a unique collaboration between Swansea University and ABM and Hywel Dda University Health Boards and forms the health and wellbeing strand of the City Deal bid.

The ARCH partners are working together to find a regional solution to major challenges facing the health service. These three big organisations have chosen to come together to action significant change at scale - and at pace.

Professor Davies added: "Nothing like ARCH has been attempted in Wales before with this level of ambition or on this scale. It is also the first time that the NHS has been involved in economic development at this level and the City Deal, in helping to transform healthcare services in South West Wales, will also deliver well-paid jobs and high-level skills."

ARCH board member and Swansea University Dean of School of Management Prof Marc Clement has been a key part of the City Deal bid work. He said: "We want the region to become a "living laboratory" – essentially a test bed for innovation which will enable transformation.

"We are delighted to hear a decision will be made in coming weeks. The City Deal will allow the ARCH partners to accelerate their work to improve the health, wealth and wellbeing of South West Wales.

"One of the main aims of the City Deal, and indeed ARCH, is to accelerate growth in our region for the benefit of the people who live here. We aim to create more well-paid jobs, more opportunity, deliver pioneering world-class healthcare, and ensure a better quality of life.

"A lot of work has gone into the City Deal bid, and

the imminent announcement is proof that collaboration on a regional scale can action real change. The deal aims to create thousands of jobs and attract a further £2billion of investment over 15 years and it has already been backed in principle by Welsh Government. It is estimated the City Deal could create as many as 33,000 jobs over two decades."

A total of £241million would come from the Welsh and UK governments, £360million from other public bodies - the councils, higher education and the European Union - and £673million from private firms. Swansea Council said this week it hoped an agreement with UK ministers could be reached by the end of February.

ARCH board member and ABMU Medical Director Professor Hamish Laing said the imminent City Deal announcement would be a welcome boost for this area. Professor Laing said: "The City Deal will help us accelerate our aims to fully integrate primary, community and hospital care through the development of Singleton and Morriston as health campuses. We welcome the close co-operation with our local authorities and third and private sector partners, which is ensuring we can implement a joined-up approach across the region."

£40million of City Deal funding would be dedicated to developing the health and wellbeing village in Llanelli while £15million would enable the first phase of the Morriston and Singleton health campus developments.

Phase 1 of the campus project will see the creation of an Institute of Life Science (ILS) at Morriston. Swansea University's Medical School has already created two ILS, which have created 800 highly-skilled jobs and secured £42million of investment in the area. Through ARCH, the ILS will be incorporated at Morriston to create a unique innovation environment. The campus Phase 1 project is set to create over 800 direct jobs during the project timescale.

A Morriston Campus will expand research and innovation infrastructure in the field of genomics and proteomics and see the regional centralisation of pathology services at Morriston.

The campus development will support creation of research collaboration and industry engagement facilities. The reconfiguration of the Morriston site will also enable the first phase of the Singleton Campus, where a growing cluster of medical and other health technology companies/collaborations are focused. This campus expansion will deliver the delivery of the Medical School's Healthcare Technology Centre (HTC).



innovative funding

what next?

“To deliver Welsh Government’s key priorities ambitious measures are required, aimed at making a difference to everyone, at every stage of their life which will involve working across traditional boundaries. ARCH’s ethos is based on collaboration to find innovative ways of working”

“ARCH is regional solution to ongoing challenges. Traditional approaches will not deliver the level of transformation required. The ARCH partners are committed to planning and implementing real change across our region at pace and at scale”

The ARCH partnership has been established to deliver a range of transformational projects which aim to improve the health wealth and wellbeing of the population of South West Wales.



Tranche one of the ARCH proposals contains c. 50 different projects. The breadth of the portfolio makes it likely that there will be a plurality of financing and funding mechanisms in order to deliver the full range of projects. Since submitting the ARCH prospectus in July 2015 the ARCH Portfolio Board has already been successful in securing funding for some of its projects. A number of these projects have been smaller in size but have demonstrated a flexibility across the collaboration enabling them to take place.

In order to shape the funding and financing proposals ARCH has appointed Price waterhouse and Coopers (PwC) to advise in respect to the different financing options that might be available to ARCH to deliver a number of the health and wellbeing programmes.

Some larger finance has been secured through the strategic positioning of the ARCH Portfolio by ARCH Portfolio Board members.

Some projects already fully or partially financed and source of funding:

Project	Indicative Funding	Funding source
ILS @ Hywel Dda part of the Llanelli Wellness & Life Science Village	£40million (split across ILS @ Hywel Dda and Education in Hywel Dda)	Swansea Bay City Deal* <small>*subject to outcome of City Deal bid</small>
Education Centre in Hywel Dda (part of Llanelli Wellness & Life Science Village)	£40million (split across ILS @ Hywel Dda and Education in Hywel Dda)	Swansea Bay City Deal* <small>*subject to outcome of City Deal bid</small>
Related Llanelli Wellness & Life Science Village projects, eg: assisted living village & wellness hotel	C~£150million	Carmarthenshire County Council (£12million land value) & private sector
ILS @ Morriston	£15million	Swansea Bay City Deal*
Agor-IP	£13million	WEFO and Welsh Government
Health & Wellbeing Academy Singleton Campus	£1million	College of Human & Health Science at Swansea University
Physician Associates Phase 1	£650,000	WEDS
Talent Bank	£2million	Private sector (Fujitsu)

N.B. Currently progressing a WEFO application for the expansion of the Health Technology Centre Network for South West Wales. C~£8million

ARCH offers a fantastic opportunity to grow and develop together, not least in respect of healthcare. We are starting from a strong place as a number of excellent processes for working collaboratively across the area are already in place.

Through ARCH we will have greater opportunities to respond swiftly and effectively to the needs of residents and really transform services for them. We are committed to delivering our vision and there is a real sense of energy around this dynamic programme.

Our next immediate steps include:

- ➔ Portfolio Delivery Plan (PDP) taken through Health Board and University governance structures;
- ➔ Gateway Review for ARCH in March;

- ➔ PDP submitted to Welsh Government in February
- ➔ Continued engaged approach via CHCs and existing mechanisms;
- ➔ Continued partnership working with Welsh Government
- ➔ Exploring ARCH engagement with The Wales Infrastructure Investment List;
- ➔ Continued work to integrate ARCH into the stabilisation plans for both health boards;
- ➔ Finalising ARCH engagement with the Swansea Bay City Region joint committee. The outcome of the City Deal bid will significantly influence the timing, pace and scope of projects within ARCH.

16 ARCH projects will go live in April. Here are examples of how they will positively impact in the following areas:

