Monash National Employment Cluster
Future Outlook Seminar
4 May 2016
partners in planning and infrastructure coordination
The Metropolitan Planning Authority

We are:
- Statutory Authority reporting to the Minister of Planning, tasked with planning for growth, housing, jobs and investment
- Working closely with Councils and local communities, other government agencies, and business to plan for:
  - Precincts in inner and middle-ring Melbourne
  - Greenfield growth areas
  - Regional cities.
- Urban planners, engineers, architects, a range of technical specialists and designers

We are not:
- Developers
- Builders
- Policy makers
- Local Government regulators
Bulk of Melbourne’s jobs are already dispersed in the suburbs.

Location of Jobs in Melbourne, 2011

- Central City - including CBD, D'lands, S'bank: 70%
- National Employment and Innovation Clusters: 14%
- Metropolitan Activity Centres: 11%
- Distributed throughout suburbs and other activity centres: 5%
We want to grow jobs across the suburbs...close to where people live
Why is Monash identified as a Cluster?

- Well located, good road infrastructure
- Investment in State and local infrastructure
- Range of institutions and big business
Current employment within the clusters

- Highest concentration of jobs outside the CBD
- Potential for job growth and transformation
Monash is well placed to grow future jobs

Victorian Government Blueprint for Growth

6 priority industry sectors

- Professional Services
- International Education
- Medical Technologies & Pharmaceuticals
- Science Technologies
- Transport Technologies
- Construction Technologies
What future for Monash?

Transformation Stage
What have you told us?
What have you told us?

Likelihood to Stay in the Cluster

Mix of Professionals, Manufacturing, Wholesale

- Over the next year
  - 84%
  - 7%
  - 9%

- Over the next 5 years
  - 67%
  - 11%
  - 22%

- Over the next 10 years
  - 47%
  - 24%

What have you told us?

• High levels of road congestion
• Lack of public transport
• Lack of cafes, conference facilities and business hotels
• Need modern buildings
• Lack of amenity
• Area doesn’t have a strong identity
What should we do to ensure Monash thrives?

• Create a plan

• Develop transport network
  – Investment in rail
  – Investment in roads – Westall Road

• Amenity for business and workers
How do people get to work?

- 89% of workers commute by car
- PT is geared to get people into CityRail upgrades:
- Improved bus services would improve business
What transport do we need to grow business in Monash?

- Rail Upgrades: improve and modernise service
- Improve bus services to support job growth, connect with rail
- Better connect public transport to University and Hospital
Walking & cycling

It’s currently a car based area...

• How do we encourage more people to use other transport options?
• What are the missing links?
• Where can connections be improved?
What’s missing for business...amenity!?

Most of Mulgrave and Notting Hill employment are nowhere near a local town centre
What do we mean by worker amenity?

- Easy to get around
- Somewhere for lunch and coffee
- Overnight accommodation
- Recreation opportunities
- Modern business image

How will the area help you to attract skilled employees?
What can we do about it?

Ideas:

• Establish 2 or 3 new Business Town Centres in the Monash Technology Precinct?
• Revitalise Clayton?
• Network of local centres?
Cultural and community infrastructure is important for a skilled workforce

Monash University provides important cultural and sporting facilities
Recreational facilities are important for a skilled workforce

Open space and sporting facilities is needed in or around:
- Employment Areas
- Activity centres
- Key development sites
- Monash University
Housing

Councils are planning for housing in residential areas

Other housing opportunities?

• More density on strategic sites

• More apartments and townhouses near railway stations

• More student housing at Monash University

• Housing for key workers, e.g. doctors, nurses

• Promote affordable housing in larger developments
What areas are suitable for change?
Hospital & University Precinct ideas

- Ensure growth of university, medical & allied health jobs
- Greater public use of University arts, recreation & open space facilities
- Amenities, shops and facilities
- Safe convenient walking/cycling connections
Clayton Central ideas

- Level crossing removal
  What opportunities are created?

- Encourage investment + retail growth
  How?

- Better connect station to Hospital and University

- Future streetscape improvements e.g. wider footpaths, trees + safe crossings

- Modernise the offer

What are your thoughts?
Are these good ideas?

AREAS FOR CHANGE

New station and public plaza planned
Clayton Business Park ideas

Great opportunity for major modern centre next to Westall Station

- Mixed use development: housing and jobs?
- High quality business park + local activity centre?
- Pedestrian and cycling paths, local park?
- Good Links to station and bus service?
- Commercial frontages: Centre, Westall + Rayhurst?
Clayton / Springvale Employment Precinct ideas

- Retain employment and high value jobs
- Foster innovation + technology potential?
- Improve connections
- Westall Road Extension - early estimates of $21 to $85 million potential investment uplift
- Allow some higher density residential without undermining employment?

What are your thoughts? Are these good ideas?
Springvale Central

- Successful centre for business, services and housing
- Recent investment, builds on level crossing removal and new station
- Increase retail diversity + other commercial development in centre?
- Unify the north + south precincts now that level crossing removal completed?

What are your thoughts? Are these good ideas?
So we are looking for your ideas before we do more detailed work...
Professor Ian Smith
Vice Provost, Research & Research Infrastructure
Monash University
Monash Employment Cluster Future Outlook: jobs, investment and infrastructure

Wednesday 4th May, Australian Synchrotron

“The role of Monash University”

Professor Ian Smith Vice-Provost (Research & Research Infrastructure)
The “Monash Village”

Rejuvenation of public spaces to create a dynamic social hub which fosters engagement and helps develop a greater sense of community

- Variety of recognised franchised food operators
- Increased hours of service to span breakfast through to dinner
- Covered all weather dining areas
- Flexible spaces
- Varied canopy
- Free electric BBQs
- Venue for diverse recreational and social engagement activities
- Large screen TV
- Structured program of events
New Halls of Residence and Park

- Turner Hall
- Logan Hall
- Campbell Hall
- Holman Hall

Central Park to the north of Campbell and Holman Halls
New Halls of Residence Interiors
Development of a Food and Retail strategy to create vibrancy through well defined hubs

A well designed retail cluster can create a sense of place, community, atmosphere and energy. Retail activities which include dinner and supper service will increase population activity on campus afterhours, which not only creates vibrancy but also improves the sense of safety for those on campus at night.

The new Urban Village - A festive ‘eat street’ supported by a supermarket and other amenities. Alive at night and on weekends. Services everyone, but especially residential students, sports and performing arts visitors.

A redeveloped and rebranded Campus Centre – a multipurpose student hub for student social activity, reflection and informal learning supported by food and beverage retail, club activities, and essential student services.

Scattered niche retailers – Each brings its own distinct offer and style these retailers mainly service postgraduate students and staff for coffee and casual lunch meetings.
The international science agenda is becoming ‘big issue solutions’ driven.

Greater focus on regional and international collaborative networks.

Innovation hubs in Europe, the US and Asia now have research capabilities structured around open-access (shared) platforms.
Monash/CSIRO/ANSTO Precinct

World Class Infrastructure
- Imaging
- Materials
- Biomedicine
- Characterisation
- Nanofabrication
- Computing
- Additive Manufacturing

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MCAM
CSIRO
New Horizons
MCEM
Green Chemical Futures
BioMed Platforms

Monash BioImaging
Australian Synchrotron
MCN
Four primary Monash University faculties currently provide a range of research platforms to industry sectors.

**Four Monash University Faculties…..**

**…. provide a range of Research related resources via Platforms…..**

<table>
<thead>
<tr>
<th>MTRP’s</th>
<th>Platform User Breakdown (Industry vs Researcher)</th>
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<tbody>
<tr>
<td>Fishcore</td>
<td>Industry 30%</td>
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<tr>
<td>Genomics</td>
<td>Researcher - Monash Employed 56%</td>
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<tr>
<td>Animal Services</td>
<td>Researcher - Non-Monash Employed 14%</td>
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<tr>
<td>Electron</td>
<td>Drug Candidate Optimization</td>
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<td>Microscopy</td>
<td>Protein Production</td>
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<tr>
<td>Crystalisation</td>
<td>HPC (MASSIVE)</td>
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<td>Custom</td>
<td><strong>~$250 million Capital Investment</strong></td>
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<td>Monoclonal Antibodies</td>
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<td>Production</td>
<td>Protein Production</td>
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<td>MTRPs</td>
<td><strong>12 Platforms now ISO 9001 certified!</strong></td>
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Do the MTRP’s Meet the Needs of Industry?

**Industry Sectors**
- Agribusiness
- Biotech/Pharma/Chem
- Building & Construction
- Consumer Goods
- Creative Industries
- Defence & Security
- Education & Training
- Environment & Energy
- Financial Services
- Food & Beverage
- Gov’t & Public Sector
- Health & Wellbeing
- ICT & e-Business
- Advanced Manufacturing
- Mining/Oil/Gas
- Professional Services
- Transport & Logistics

**Sector Needs**
- Access to investment
- Business intelligence
- Project consultancy
- Project planning
- Project incubation
- Business specific R&D
- Ideas generation/testing
- Product design-prototyping
- Product testing-acceptance
- IP planning-exploitation
- Training and education
- Product development
- Technology consultancy

**MONASH UNIVERSITY CAPABILITIES**

**SERVICES**
- Contract R&D
- Education
- Platforms
- Business Services
- Consulting
- Training

**RESOURCES**
- Full Range of Faculty Resources
- Subject Specific Centres
- Cross-Disciplinary Thematic Institutes
- Research Platforms
- Industry Engagement And Commercialisation

**ACCESS**
- Local Research Networks
- Regional Campus Resources
- Overseas Campus Resources
- National Capability Networks
- International Partner networks
- Industrial Partners
Do Monash Platforms Meet the Needs of Industry?
Monash Centre Additive Manufacturing (MCAM)

10 academics & 20 PhDs in materials and engineering
Prof Xinhua Wu, Fellow of Academy of Engineering
- Aerospace materials & manufacturing
- Materials science in additive manufacturing
- Ti and Ni high temperature materials
- Design process & materials for meeting aerospace industry requirements & applications

Industrial partners: Microturbo- Safran, Airbus, Boeing, Bombardier, Raytheon

Academic partners: Deakin University, CSIRO

Commercial company: Amaero Engineering Pty Ltd

Award/success: 2014 Safran 1st prize Innovation award and Jury award, World's 1st 3D printed jet engine!

Major Research programmes: Industrial Transformation Research Hub($9M), SIEF(Science Industrial Endowment Funding)($4M)
A Printed Jet Engine!
“The Body in a Box”: the creation of a 3D Printed Human Body for Medical Education

Prof Paul McMenamin and the Team at The Centre for Human Anatomy Education
Department of Anatomy & Developmental Biology
Monash University, Melbourne, Australia
3D Polymer Printed “Body Parts”
‘Erler Zimmer’ Licensed to Distribute Worldwide
The Generator

powered by Monash
Cultivate, Develop and Create
a vibrant entrepreneurial culture & mindset, preparing well-trained entrepreneurs for success

Train, Fund and Support...................Awesome ideas
mentor, award, invest, incubate, engage, facilitate, host, network, connect, advocate

Programs 2016:
• Ideator
• Pitch Co-ordinator
• The Coach Connector
• The Accelerator
• Translational Fellows
• The Entrepreneurship Ambassadors
• The Motivator Series
• Israel Joint Exchange Program
### CO-WORKING SPACE

**What:** hot-desking  
**Who:** students, faculty, staff  
**When:** from May 2016  
**Why:** network & connect, carve out a focused time to work on your start-up  
**How:** just drop in during business hours (let us know if you want to use other times)

### INCUBATOR SPACE

**What:** office space  
**Who:** students, faculty, staff, alumni – teams up to 4  
**When:** now  
**Why:** network & connect, carve out a focused time to work on your start-up  
**How:** apply online
“I am still learning”
(Michelangelo ~1533)
DISCOVER THE POSSIBILITIES

THANK YOU

platforms.monash.edu
Gavin Smith
President
Robert Bosch Australia
Diversity drives growth.
Panel

Peter Seamer, Metropolitan Planning Authority
Prof. Ian Smith, Monash University
Gavin Smith, Robert Bosch Australia
Ros Hore, CSIRO
How to have your say

Business Focus Groups
(register tonight or through Eventbrite)

**Focus Group 1** - Tuesday 10th May, 11am-1pm
Bosch Australia Clayton

**Focus Group 2** - Tuesday 17th May, 4-6pm
Nexus Business Park Mulgrave

**Focus Group 3** - Thursday 19th May, 5-7pm
Clayton Community Centre

Online survey
shapevictoria.vic.gov.au
(copies available tonight or online)
Monash Employment Cluster Work Program

Next Steps:

1. Consider feedback and work with stakeholders
2. Prepare draft framework plan
3. Public exhibition of framework plan and planning scheme amendment in 2017