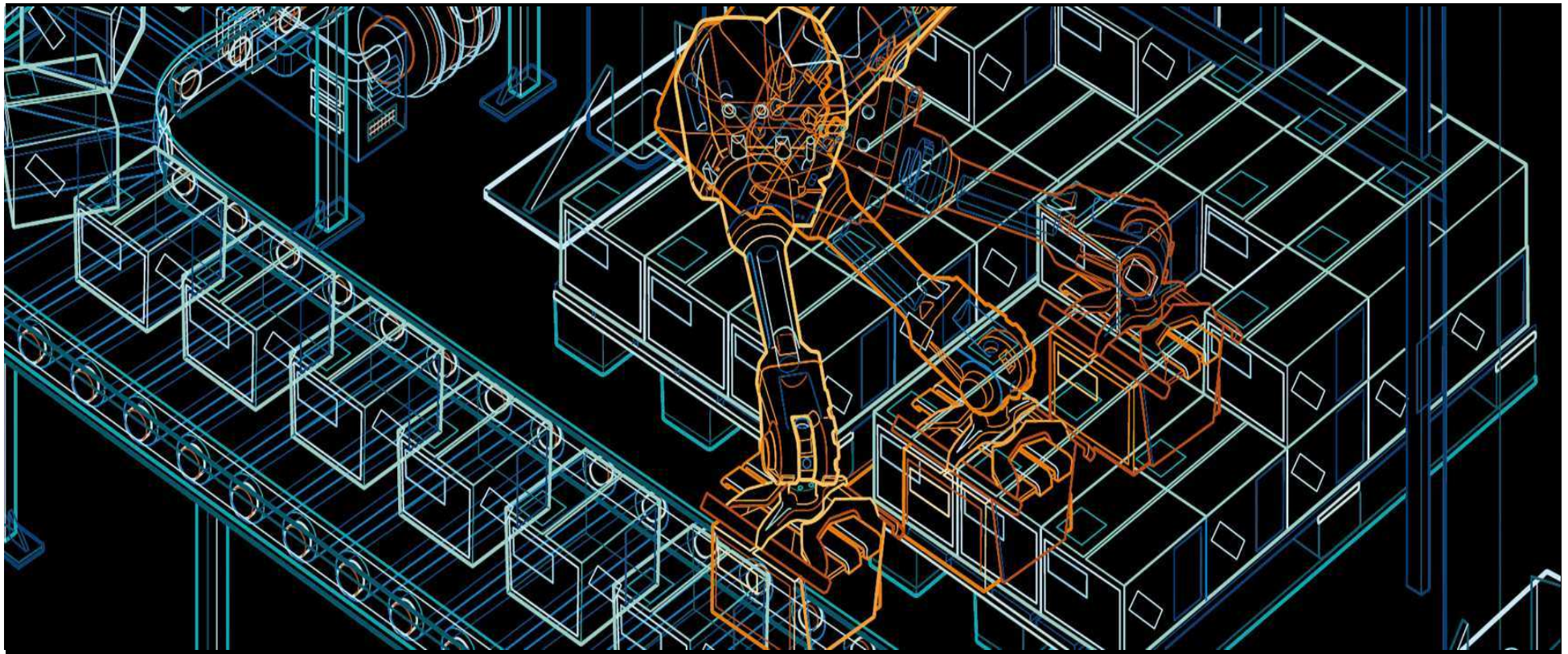

Peter Bradbury, ABB Australia Presentation to Australian Winery Engineers Conference, June 23rd 2011

Robot Automation for the Wine Industry: 10 Good Reasons to Invest in Robots

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10 Good Reasons to Invest in Robots

1. Reduce operating costs
2. Improve product quality & consistency
3. Improve quality of work for employees
4. Increase production output rates
5. Increase product manufacturing flexibility
6. Reduce material waste and increase yield
7. Comply with safety rules and improve workplace health & safety
8. Reduce labour turnover and difficulty of recruiting workers
9. Reduce capital costs (inventory, work in progress)
10. Save space in high value manufacturing areas

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1. Reduce Operating Costs

Application –

- Palletising of champagne at Pommery, Reims, France

Primary Benefit –

- Reduced direct labour costs

Other benefits –

- Safer workplace (insurance cover cost reduction)
- Reduced labour turn-over
- Less breakage

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2. Improve Quality of Work for Employees

- Applications:
- Box unloading at Veuve Cliquot

Primary benefit –

- Reduction of repetitive activities

Other benefits –

- Safer workplace (insurance cover cost reduction)
- Reduced labour turn-over
- Less breakage

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Veuve Cliquot
Application de déboxage

3. Increase Production Output Rates

Application – High-speed layer palletising

1. Shrink-wrapped bottles of water by Visy-Hartness, USA
2. Cartons of beer at Fosters

Primary Benefit –

- Very high-speed palletising – up to 11 layers/minute

Other benefits –

- Safer workplace (insurance cover cost reduction)
- Reduced labour turn-over
- Less breakage

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4. Increase Product Manufacturing Flexibility

- Application –
- Loading of “mixed packs”

Primary benefit –

- Flexibility – increasing greater marketing opportunities

Other benefits –

- Reduction of repetitive activities
- Safer workplace (insurance cover cost reduction)
- Reduced labour turn-over
- Less breakage

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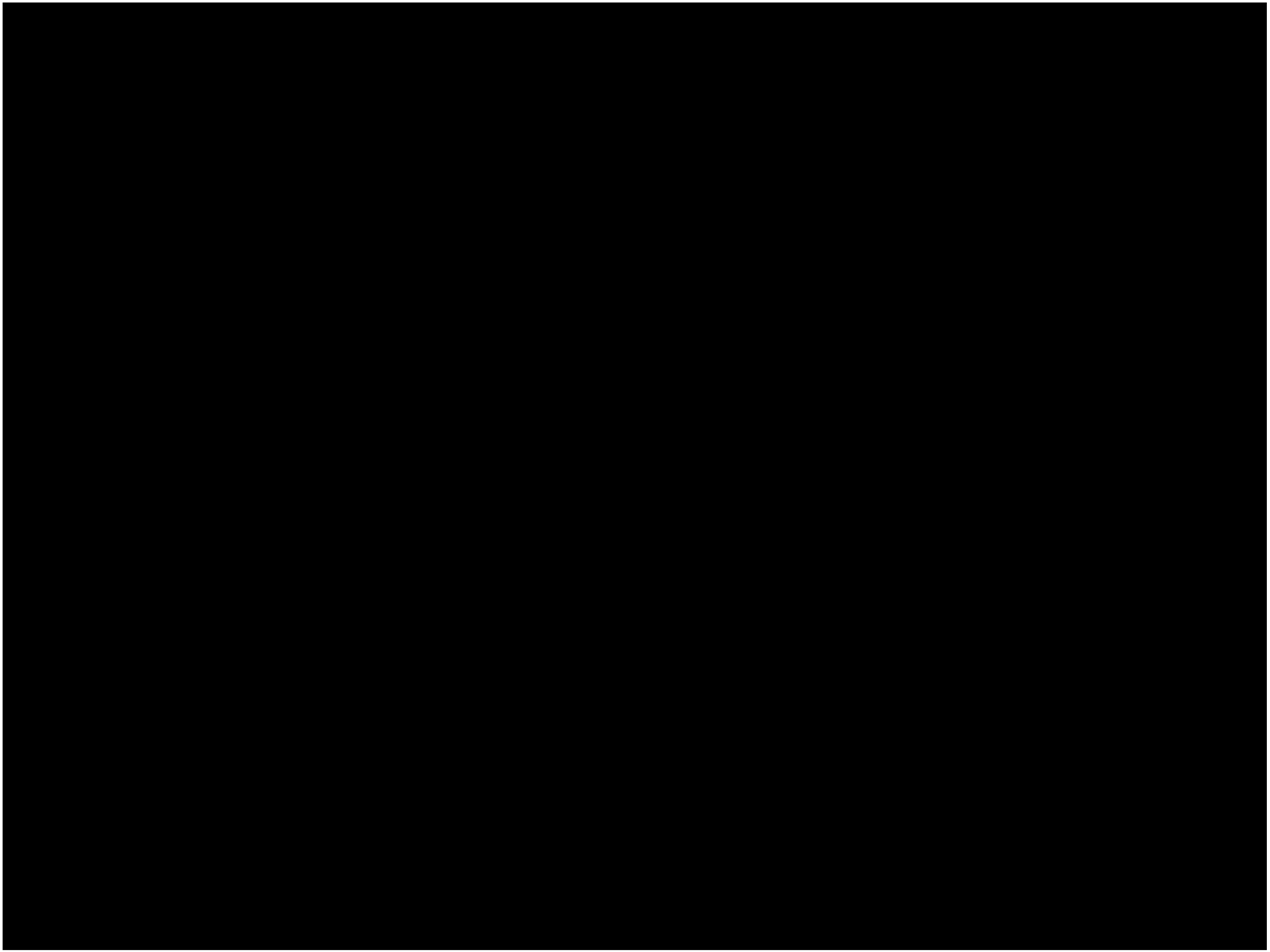

5. Comply with safety rules and improve workplace health & safety

- Application –
- Case packing – lay-down bottles with dividers at Bollinger
- Case packing – individually packed bottles at Roederer

Primary benefit –

- Reduced repetitive strain injuries

- Other benefits –
- Safer workplace (insurance cover cost reduction)
- Reduced labour turn-over
- Less breakage

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6. Save space in high value manufacturing areas

- Application –
- Box loading in a truck, providing bottle matured wines in an “Estate Bottled” environment

Primary benefit –

- Non utilization of valuable floor space

- Other benefits –
- Reduction of repetitive activities
- Safer workplace (insurance cover cost reduction)
- Reduced labour turn-over
- Less breakage

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10 Robotic Applications in Bottling Applications

1. De-Strapping Pallets of Empty Bottles
2. De-Palletising Pallets of Empty Bottles
3. Box/Stillage Loading of Cleanskin Bottles
4. Box/Stillage Unloading of Cleanskin Bottles
5. Case-Packing – Bottles “Standing-Up” into RSC Cartons
6. Case Packing – “Lay-Down” Presentation Packs
7. Mixed Pack/Case Loading
8. Palletising – Pick’n’Place
9. High Speed Layer Palletising
10. Full Pallet Labelling

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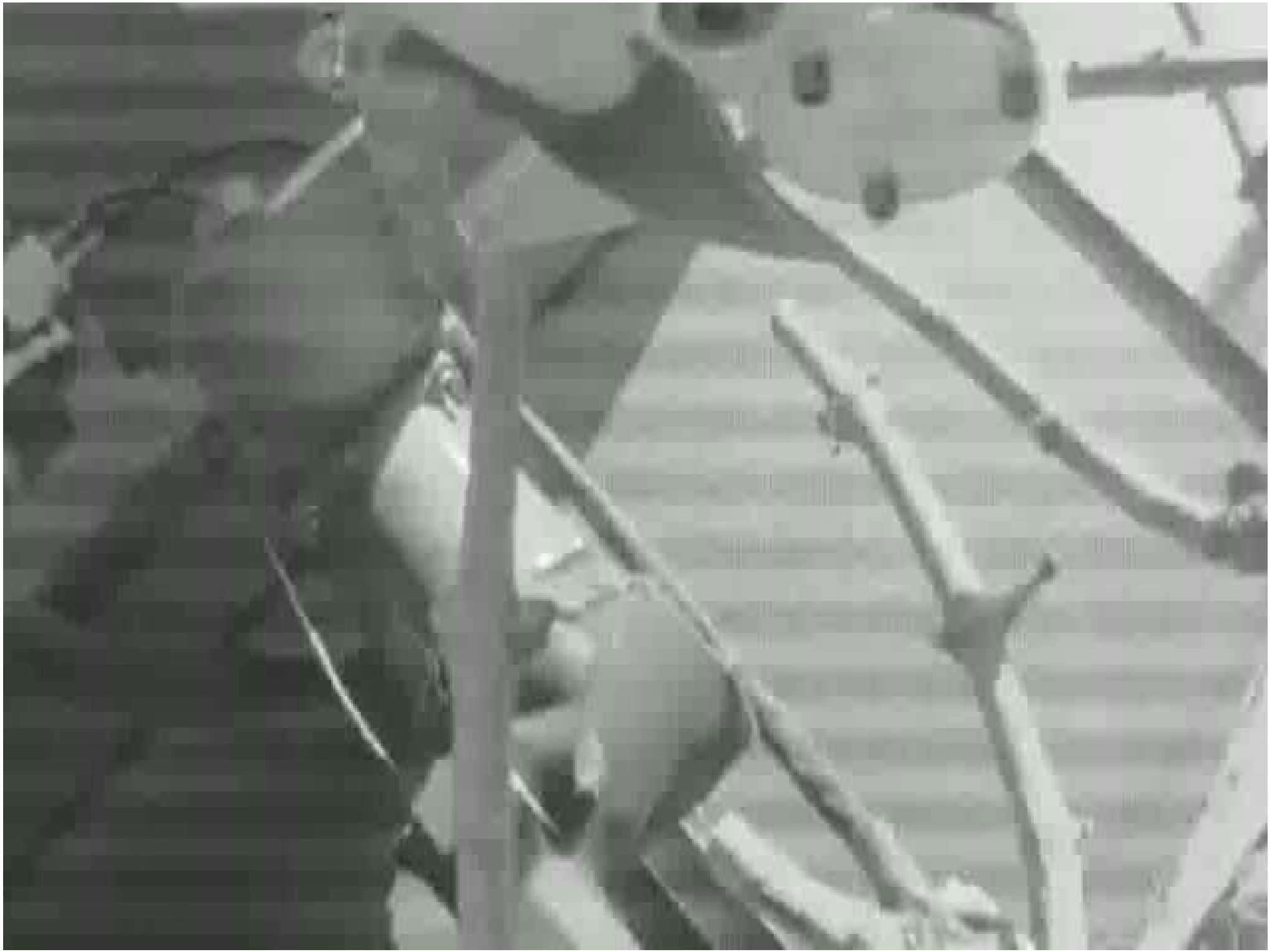
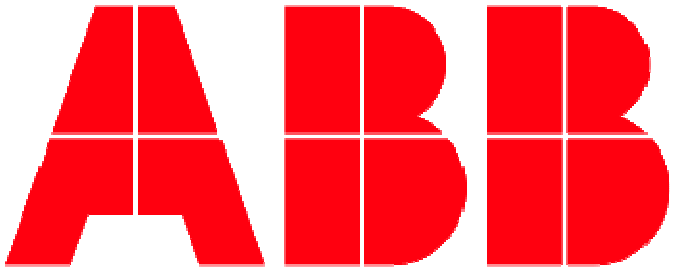
Future Applications……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