HTSC Consortium Day

Workshop ‘Cooperative Robotics for AgroFood’

18 November 2016
Workshop preparation

- John Bal (ZLTO)
- Herman Bruyninckx (KUL & TU/e)
- Lenny van Erp (HAS)
- Marcel van Haren (FME|GMV)
- Eldert van Henten (WUR)
- Jeannette Lankhaar (HTSC TU/e)
- Richard van Lieshout (HTSC TU/e)
- René van de Molengraft (TU/e)
- Erik Pekkeriet (WUR)
- Jesse Scholtes (TU/e)
STW Perspectief ‘Intelligent inspection, manipulation and gripping in AgroFood’

• Novel manipulation and gripping techniques
• Intelligent and adaptive motion planning
• Autonomous navigation in changing environments
• Robust and flexible object detection (multi-variable and delicate products)
## AgroFood – Technological needs

<table>
<thead>
<tr>
<th>Robust design</th>
<th>Identification</th>
<th>Generic technologies</th>
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</thead>
<tbody>
<tr>
<td>Autonomous robots</td>
<td>3D Navigation</td>
<td>Sensitivity</td>
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<tr>
<td>Food Safety Personal Cybersecurity</td>
<td>Tactile sensors</td>
<td>Positioning Gripper</td>
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<td>Smart</td>
<td>Standardization</td>
<td>Precision</td>
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<tr>
<td>Lab-on-Chip</td>
<td>Data science</td>
<td>Clean-ability</td>
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<tr>
<td>Maintenance</td>
<td>Imaging</td>
<td>3D Vision</td>
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<tr>
<td></td>
<td>Trace-ability</td>
<td>Power supply system</td>
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</tbody>
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*Image: Cooperative Robotics for AgroFood*
Program

10.45 – 10.50 Welcome
10.50 – 11.00 Challenges in AgroFood Robotics  
(Marcel van Haren, John Bal)
11.00 – 11.10 Opportunities in AgroFood Robotics  
(Eldert van Henten)
11.10 – 12.00 Group assignment
12.00 – 12.15 Group pitches
12.15 Closure

OK! As long as you do not skip the lunch break!!
Program

13.15 – 13.20 Welcome
13.20 – 13.30 Challenges in AgroFood Robotics
   *(Marcel van Haren, John Bal)*
13.30 – 13.40 Opportunities in AgroFood Robotics
   *(Eldert van Henten)*
13.40 – 14.30 Group assignment
14.30 – 14.45 Group pitches
14.45 Closure

OK! As long as you do not skip the coffee break!!
Group assignment (60 minutes in total)

• Case: STW Perspectief aanvraag ‘*Intelligent inspection, manipulation and gripping in AgroFood*’

• Other cases?
Group assignment

- Please take a seat at one of the tables
- Each group: choose a note taker and pitch presenter
- Use the flip-over to write down your notes and to present the pitch
- Each table will have facilitators from the AgroFood and High Tech:

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Table 2</th>
<th>Table 3</th>
<th>Table 4</th>
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<td>Jesse Scholtes</td>
<td>Marcel van Haren</td>
<td>Herman Bruyninckx</td>
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</table>
Setting up a project plan (40 minutes)

- Rank the identified problems
- What are the stakeholders requirements?
- What are the technical research challenges?
- What are the planned milestones?
- Who should be in the consortium?
Group pitch (4 minutes per group)

• Each group will give a short pitch on the outcome
Thank you!