Welcome to the

Topic Group Summit 2021

eu ROBOTICS

Meeting Etiquette

- Please turn off your microphone and Video if you are not speaking
- If you want to speak please raise your electronic hand
- …or post a chat message
- We welcome interaction…

Introduction and Welcome

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Bernd Liepert
President euRobotics

Explaining the Roadmap Process

David Bisset

Executive Director

euRobotics

Why develop a new roadmap?

- Address the changes since 2014
  - AI and Big Data
  - New societal goals
  - …

- Map new robotics uptake

- Highlight new challenges

- Identify and promote European strengths

Why a roadmap is important…

Eco-System

European Commission — Input to Work Programme and Strategy

Seeds Workshops — EUROPEAN ROBOTICS FORUM — Brought to you by SPARC

European Roadmap

euROBOTICS — Sets scope for euRobotics

Provide content focus — Promoting Excellence in European Robotics

Frames Topic Groups

Topic Groups

Provides a framework
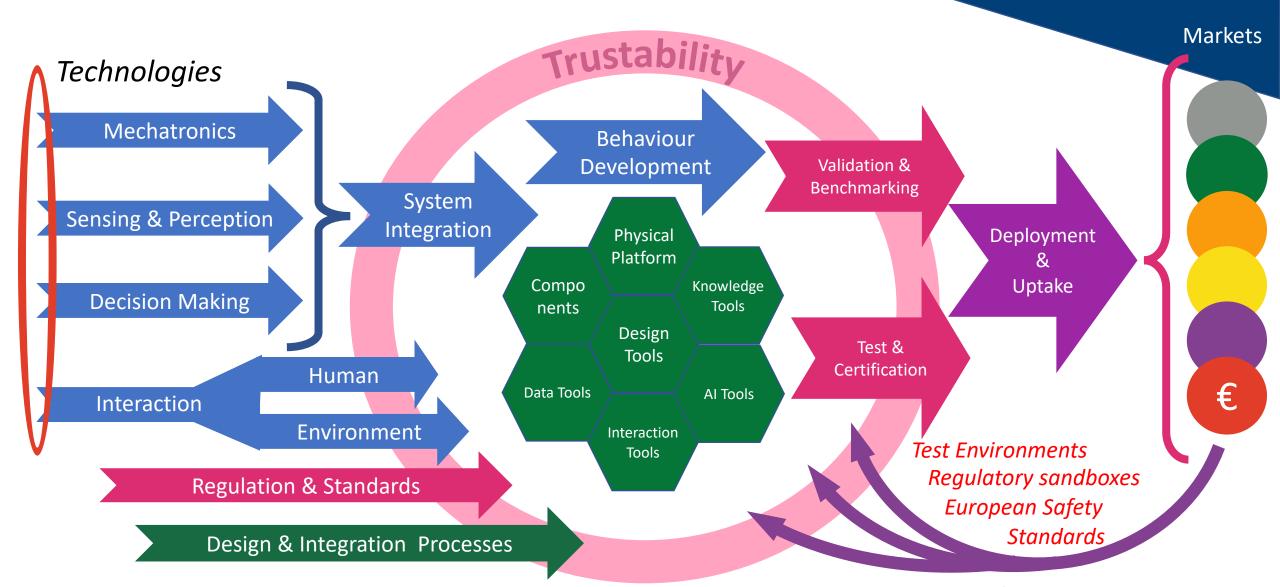
Basis for Strategic Connections to Stakeholders
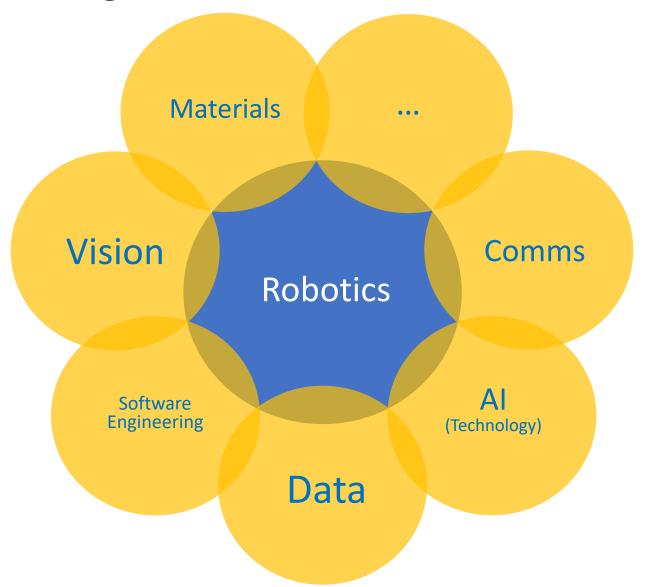
Roadmap scope...
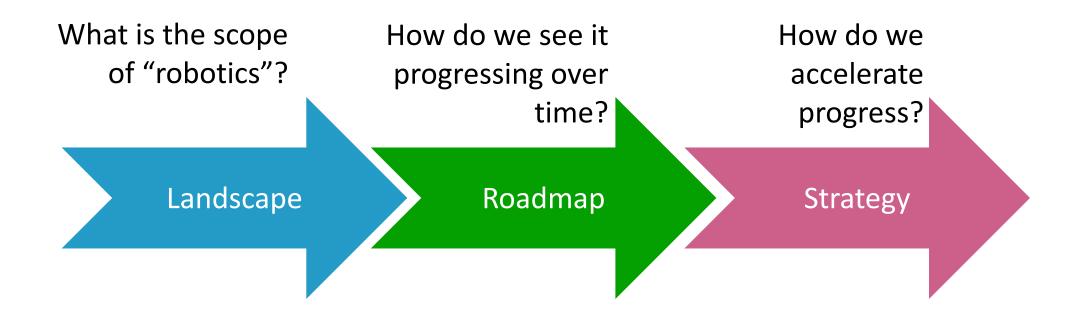
Co-technologies

Strategic components

What is the scope of "robotics"?

How do we see it progressing over time?

How do we accelerate progress?

Landscape → Roadmap → Strategy
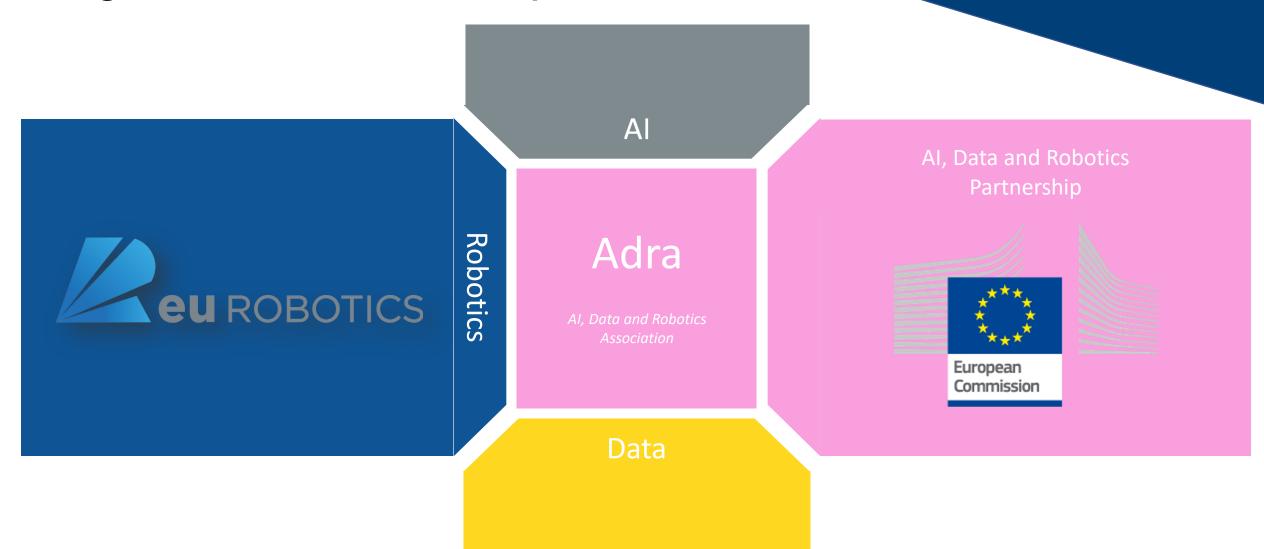
Organisational landscape

AI

Adra

AI, Data and Robotics Association

Robotics

Data

AI, Data and Robotics Partnership

Strategy
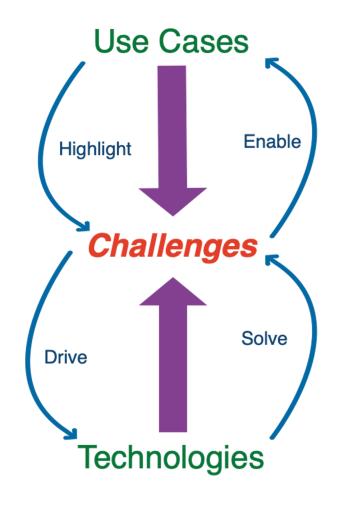
Content Framework

Markets and Sectors

Impact

Applications

Infrastructure

Modalities
(Marine, Aerial etc.)
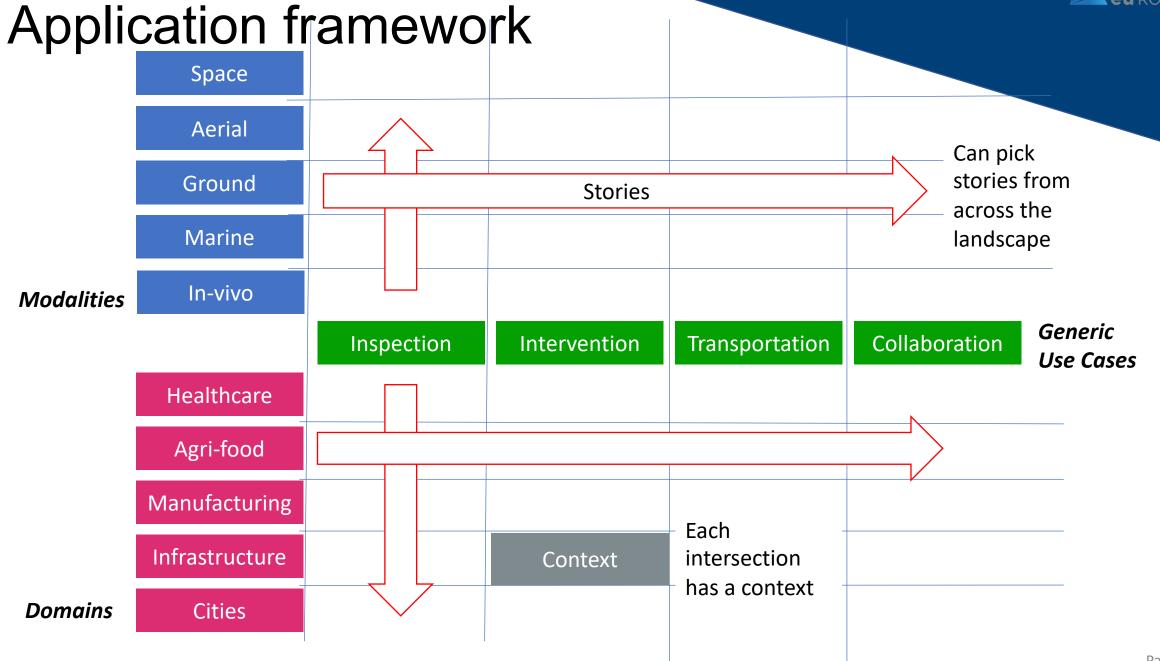
Skills and training
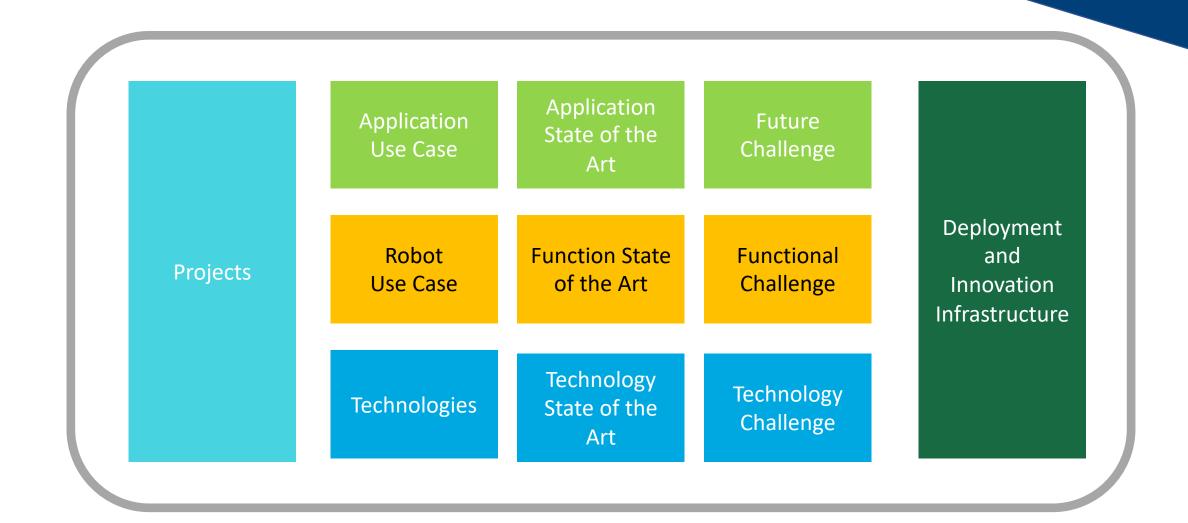
Policy, Regulation, Certification and Standards

Application framework

Modalities

- Space
- Aerial
- Ground
- Marine
- In-vivo

Domains

- Healthcare
- Agri-food
- Manufacturing
- Infrastructure
- Cities

Generic Use Cases

- Inspection
- Intervention
- Transportation
- Collaboration

Stories

Can pick stories from across the landscape

Context

Each intersection has a context
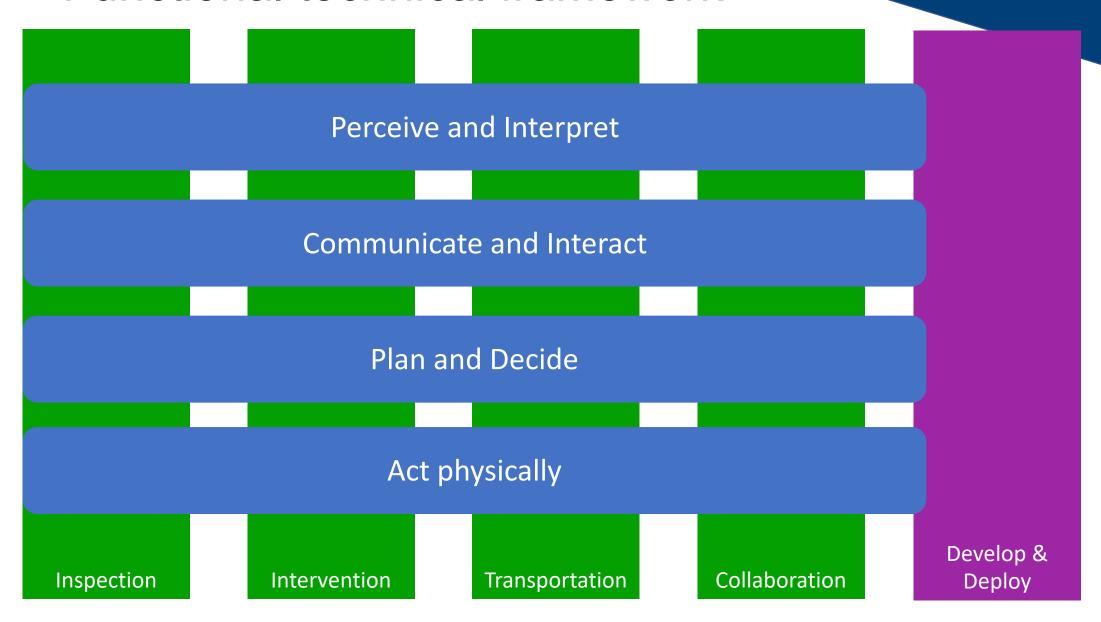
Application framework: Context

Projects	Application Use Case	Application State of the Art	Future Challenge	Deployment and Innovation Infrastructure
	Robot Use Case	Function State of the Art	Functional Challenge	
	Technologies	Technology State of the Art	Technology Challenge	

Functional technical framework

Perceive and Interpret

Communicate and Interact

Plan and Decide

Act physically

Inspection

Intervention

Transportation

Collaboration

Develop & Deploy

Sharing Topic Group Roadmaps

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The story so far...

    TG-Agriculture

    TG-Healthcare

    TG-Sustainability
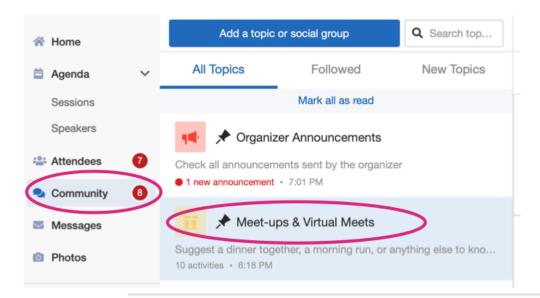
    TG-Miniature Robotics

    TG-AI and Cognition

Morning Breakouts

How do I join a Meet-up?

How to use Miro

Pick and drag Post-Its

Zoom and Scroll
(Can use keyboard + mouse)
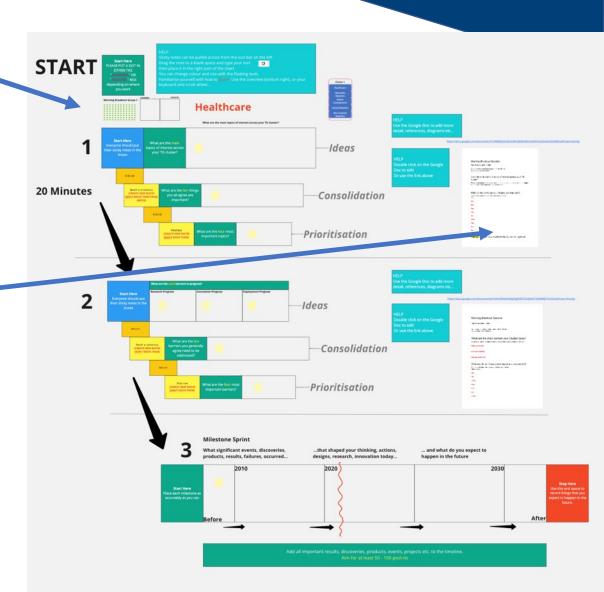
Miro Boards

- Put a dot where you belong

- Use the links to the Miro Baords
- Use them along side the video call.
  - Don't screen share them
- Edit the board by adding Post-it notes

- Google Docs can also be used.
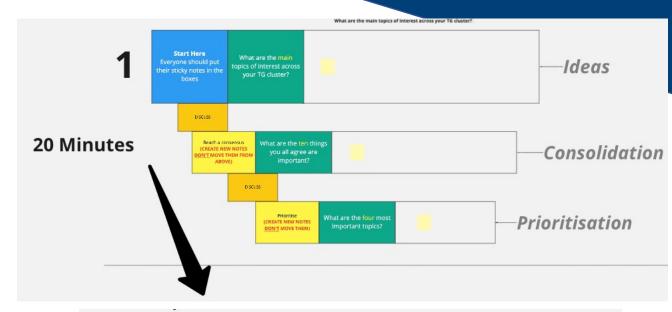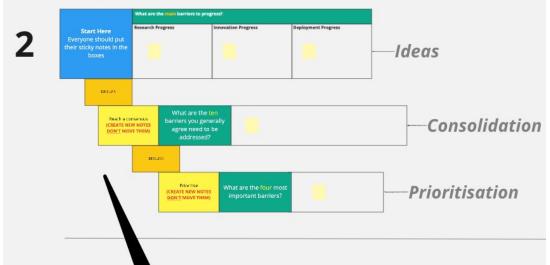- Double click to edit

Three tasks

Task 1:

- What is important across your cluster?
  - Discuss
- Consolidate
  - Top Ten
- Prioritise
  - Four key priorities
  - Most should agree

Task 2

- What are the main barriers?
- Discuss, Consolidate and Prioritise
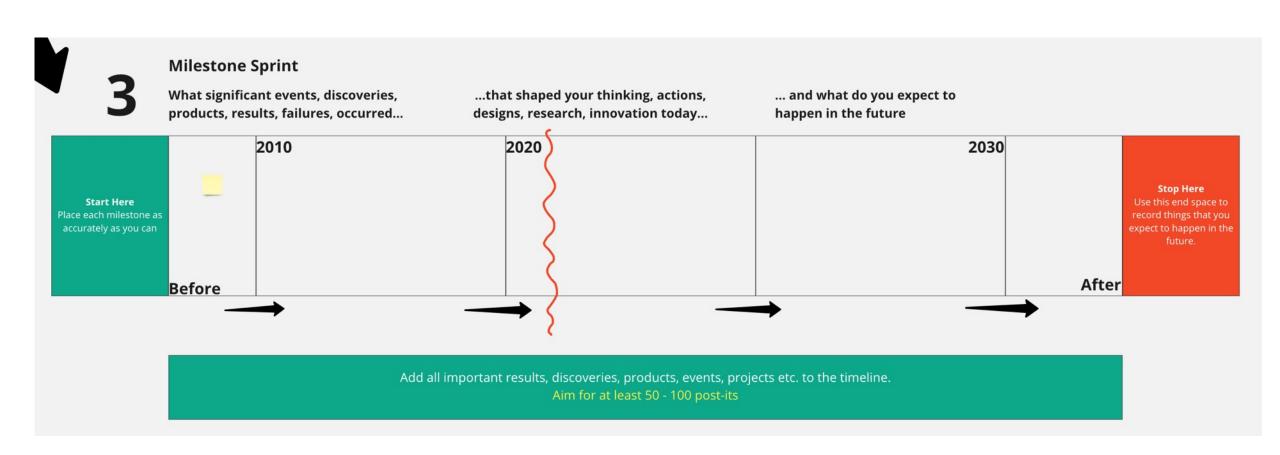
Milestone Sprint

50-100 Post-it notes across the time line in 10 minutes
Use the past to predict the future.

Be Heard! Be Seen!

This is your chance to shape the Strategy and Roadmap

Take time to contribute to the Miro Boards

But also discuss…

Topic Group Coordinators will act as Rapporteurs

There will be a Plenary feedback session

You can switch meetings in between

Miro Board Links can be Found In the Handouts Section under Agenda

Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5
Healthcare	Cybersecurity	Autonomous Navigation	Ethical Legal and Societal	Miniaturised Robotics
Wearable Robotics	Software & Systems	Logistics and Transport	AI and Cognition	Laboratory Robotics
Robot Companions	Mechatronics	Agriculture	Perception	Harsh Environment Robotics
Social Robotics	Safety	Construction		Inspection and Maintenance
Bio-Inspired Robotics	Benchmarking and Competitions	Sustainability		Tele-Robotics
	Standardisation			Marine Robotics
	Industrial Robotics			Aerial Robotics
	Cloud Robotics			Space Robotics

Entrepreneurship

Education

Feedback

Cluster 1 – Healthcare

Cluster 2 – Industrial Scale Enablers

Cluster 3 – Large Scale Robotics

Cluster 4 – Perception, Cognition and AI

Cluster 5 – All the Robot Modalities

Lunch

12:55 – 13-25

Intro to the Afternoon

Keynote:

Breakout Topics:

euRobotics Discussion:

Keynote

Robotics: a major component in the European AI Strategy

Cécile Huet

Acting Head DG-CNECT Unit A1:
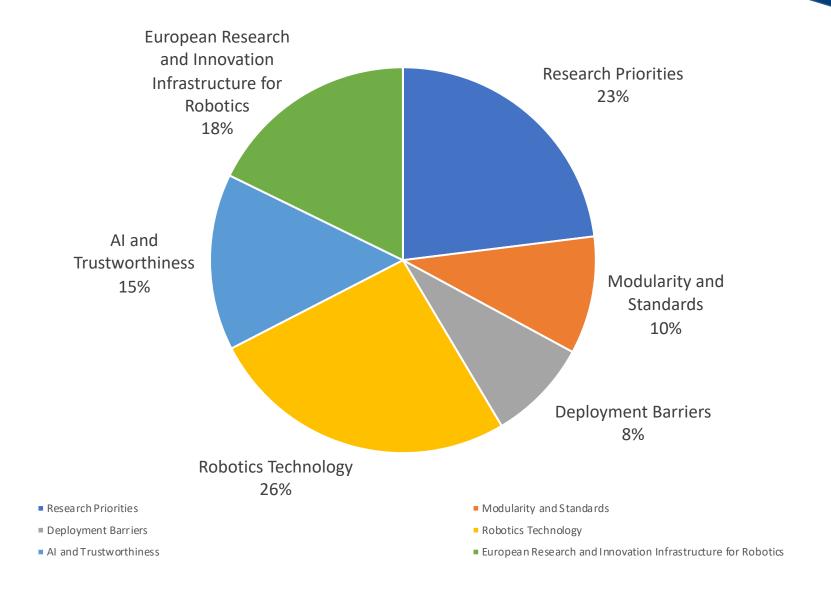
Robotics & Artificial Intelligence Innovation and Excellence

eu ROBOTICS

Topic Breakouts

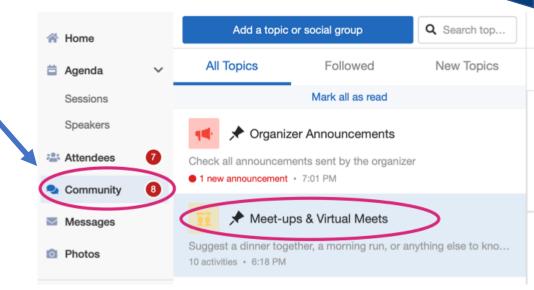David Bisset

Executive Director

euRobotics

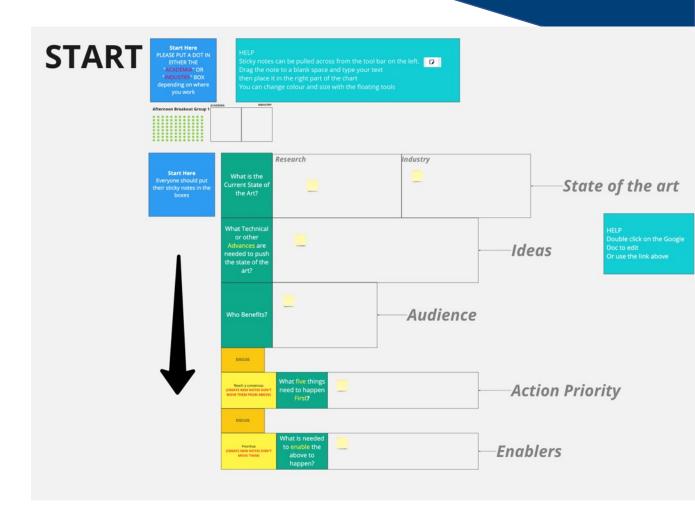# Topic Choice: From votes…

Breakouts

- Join Meet-ups through "Community"

- **No** predefined Topic Group clusters.
- Use Miro Boards and Google docs

- Join the group you are most interested in:
- Group 1: Robotics Technology
- Group 2: Research Priorities
- Group 3: AI and Trustworthiness
- Group 4: Modularity and Standards
- Group 5: Innovation Infrastructure

Afternoon Task

- Common to each group

- What is the State of the Art?
- What advances are needed?
- Who benefits?
- Five Priorities
- Enabling factors
  - Framework conditions

- You can add new questions.
- Plenary feedback.

Topic Breakouts

Group 1 – Robotics Technology

Group 2 – Research Priorities

Group 3 – AI and Trustworthiness

Group 4 – Modularity and Standards

Group 5 – Innovation Infrastructure

Feedback from the Breakout

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Group 1 – Robotics Technology

Group 2 – Research Priorities

Group 3 – AI and Trustworthiness

Group 4 – Modularity and Standards

Group 5 – Innovation Infrastructure

Discussion with euRobotics

Open Session

- euRobotics wants to fully support TGs

- What can we do better?

- What do you need?

- How can we support your work?

- How can we build on what you do?
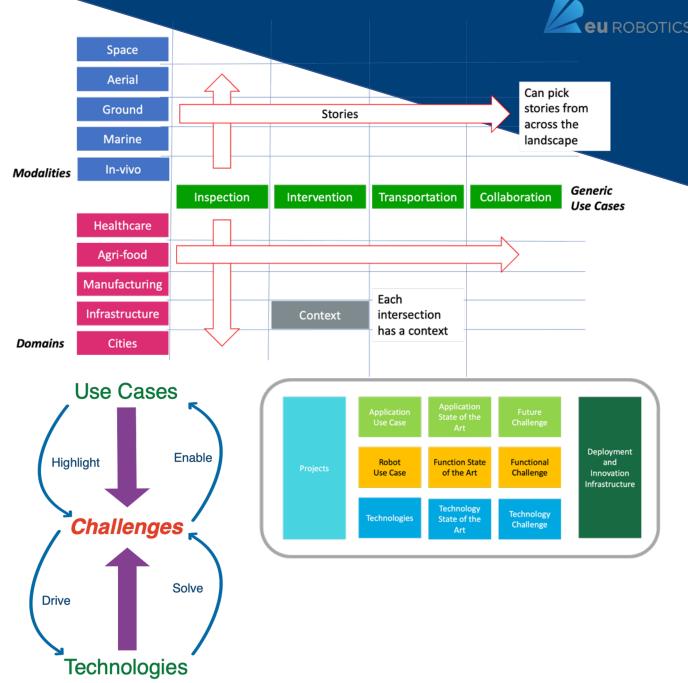
- How should we organise the TG Summit 2022?

Next Steps

David Bisset

Executive Director

euRobotics

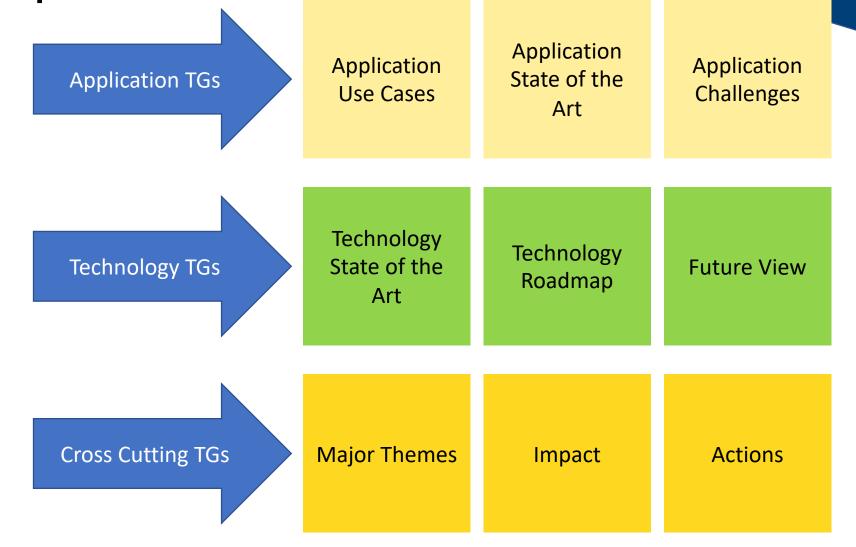# Frameworks

- Frameworks shape content

- We need good stories

- We also need good images and videos

TG Input

Application TGs →	Application Use Cases	Application State of the Art	Application Challenges
Technology TGs →	Technology State of the Art	Technology Roadmap	Future View
Cross Cutting TGs →	Major Themes	Impact	Actions

Roadmap Output

	Overview	Landscape	Future		
Highlights	Overview	Landscape	Future		
Detail	Application Impact	Application State of the Art	Innovation	Deployment	Technical Overview
Dynamic	Market Projections	State of the Art Applications (Videos)	Innovation (Interviews) (Showcase)	Deployment (interviews) (Showcase)	Future Roadmap

Time Line (TBD)

Milestone	Date
TG Summit	27th October
Final TG inputs	End November
1st Draft full document	Jan 2022
Final TG/BoD feedback	Feb 2022
Final Draft for ERF	March 2022
Top level overview first draft	March 2022
Initial Publication	April 2022

Website and Portal

- The euRobotics website is being updated.
  - Topic Groups will get more visibility
  - New top level tab

- The portal will be updated
  - Latest platform version (Feb 2022)
  - Better resource
  - Content updated to new frameworks

Summit Close

See you at the European Robotics Forum!

https://www.eu-robotics.net

Thank you!