



RockEU2
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Outreach Strategy Guide

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Executive summary

As a first step towards an outreach strategy, the initial meeting of the Outreach Advisory Board took place on 2 Sept. 2016 in Brussels. This meeting was dedicated to identifying the most relevant topics and a structured approach to address them. This meeting was moderated by Steve Doswell, a PR and communication specialist, who is since several years involved in robotics activities. A key output from this body is to identify key messages for outward communication to wider audiences, including potential stakeholders, policy makers and citizens.

The main themes addressed are

- **Robots, jobs and society**
- **Trust, ethics and security**
- **Liability, autonomy and the law**

For each of the sections, **Objectives, Target audiences, Campaigns and methods, Opportunities, Challenges** and **Quick wins** are identified and as a main outcome, key messages for each theme are given.

This deliverable is based on the findings of that meeting, especially on the report by Steve Doswell and lists also the dissemination and outreach activities implemented so far.

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1. Introduction

As a first step towards an outreach strategy, the initial meeting of the Outreach Advisory Board took place on 2 Sept. 2016 in Brussels. This meeting was dedicated to identifying the most relevant topics and a structured approach to address them. This meeting was facilitated by Steve Doswell, a PR and communication specialist, who is since several years involved in robotics activities. A key output from this body is to identify key messages for outward communication to wider audiences, including potential stakeholders, policy makers and citizens.

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2. Approach

The robotics community is now creating communication structures and mechanisms to enable robotics stakeholders within Europe to build a viable global market. This is a primary directive of the Outreach Advisory Board (OAB) which has been formed to provide strategic guidance and leadership for this purpose. Drawing from among both end-users and stakeholder organisations, the OAB comprises prominent figures from diverse backgrounds and will collectively provide a mix of robotics and non-robotics expertise.

Growing and maintaining the stakeholder community within Europe will require active outreach to all audiences and the Advisory Board will play a special role during the robotics community's major events (European Robotics Week and Forum) in helping to promote and provide strategic direction for its development and implementation.

Due to the structure of the OAB, representing many organisations with either a direct or an indirect interest in - or relationship to - the European robotics sector. academic, industry, employment, legal, policy-making and democratic dimensions were reflected in the meeting's composition.

The following objectives had been identified for the meeting:

1. Create a sense of common purpose among members of the OAB
2. Establish a common view of action and progress to date, with an assessment of the current state and quality of engagement with robotics stakeholders, policy makers and citizens.
3. Define and reach agreement on an Outreach strategy, giving consideration to target audiences, campaigning, challenges and gaps

4. Develop outline key messages mainly under three¹ umbrella themes:
 - **Robots, jobs and society**
 - **Trust, ethics and security**
 - **Liability, autonomy and the law**
5. Agree next steps and responsibilities for decisions taken/actions agreed during the meeting.

There were two phases of sub-group activity. During the first phase, sub-groups considered each of the three umbrella themes within a structure for discussion: **Objectives, Target audiences, Campaigns and methods, Opportunities, Challenges** and **Quick wins**. A rapporteur from each sub-group then presented back the conclusions of the sub-group to the full meeting. These conclusions were then amplified in further plenary discussion.

In the second phase, differently-composed sub-groups brainstormed **Key Messages** under one of the three umbrella themes. Varying the method slightly this time, the sub-group members then moved to a second theme, with one member per sub-group remaining with each theme's flipchart to recap the key messages already identified and then leading discussion to refine or add to those key messages. The sub-groups then moved again so that, in this way, each delegate was able to contribute to the generation of key messages for each of the three umbrella themes.

3. Outcome

The following outcome is structured by the umbrella themes according to the scheme described above with a short introduction to each topic.

3.1. Liability, Autonomy and the Law

There is no specific RoboLaw for now. One needs to understand why we need the law. The starting point should be 'What is a robot?' – it is characterized by autonomy and decision-making based on data. From a legal perspective, there are several challenges regarding human interaction with machines. It is difficult to find insurance companies for some robotics fields, such as marine, whereas for aerial robotics, a market has slowly been forming.

The goal is to explain to the public the differences between robots/ applications etc. that the law will be required to deal with and to explain the risks. Changes in expectations will drive changes in behaviour and law. During the discussions it was proposed to alter the language around robotics, including a suggestion to find an alternative to 'robot' (the term 'autonomous system' was proposed). For example, there was a need to distinguish between cruise-control

¹ A fourth theme - **Skills, STEM and robotics education** - had already been widely and specifically explored during coordination workshops for European Robotics Week, most recently in Frankfurt on 2nd June 2016, and while this theme remained a central part of the OAB's scope of interest, it was decided for event planning purposes that the focus is on the three themes listed above

and an autonomous car, making decisions on its own. More thought leaders are needed to go out to the world and explain this. One proposal was for a workshop about the driverless car during European Robotics Week 2016.

1. Objectives

- Explain the differences in the types and nature of robotics (definition issue)
- Explain the new risks inherent (liability issue)
- Determine if existing laws are applicable
- Determine if existing standards remain appropriate or should change
- Decide if expectations of the law and robotics should change
- Use the legal and liability issues surrounding the driverless car and drones to educate the public.

2. Target audiences

- Lawyers
- Regulators
- Insurers
- Manufacturers
- Consumer groups

3. Campaign themes

- What is a robot?

4. Opportunities

- Thought leadership with expert input

5. Challenges

- Public perception
- Industry knowledge
- Keeping up with technology

6. Quick wins

- Dedicated seminar on this theme

- Teaming up with MEPs such as Mady Delvaux and other rapporteurs, involved in the EP report
- Featuring the driverless car in European Robotics Week

7. Key messages

- POLICY:
 - Define 'robot' (policy and public) – there are many definitions and applications
 - Communicate about levels of autonomy
 - Every level must be certified with machine producers of machine
 - Different laws to govern different types of robot
 - The user is in charge
 - Individual responsibility
- 'Learning' is different from autonomy
- Systems and learning are a difficult area, not easily certifiable
- Robots are products and there are therefore protections in law concerning their use
 - The law is your guarantor of trust in robots (Kitemark / CE)
- Legal/liability/ethical factors should be communicated to designers
- The role of law in addressing the dangerous use of robots
- Where does ownership lie in cases where machines develop intellectual property (IP)?
- How does technology change behaviour (driver)

3.2. Robots, Jobs and Society

It is important to tackle the digital divide and to communicate the potential of robots, to highlight the ease with which bring robots can be applied to other areas and to explain that this creates potential for entrepreneurship [and creating value].

Target groups for communication include both those who are positively affected and those negatively affected. Teachers should be one of the main audiences. The main types of public reached now are: policy-makers, young people and industry. Those who are negatively impacted are not currently reached, nor are those who could use them (e.g. the services industry).

The message should be: it is good to build machines able to free people from dangerous, hard, dull work.

Insurance companies should be brought in for industries where there are fewer accidents because of the use of robots. Other actors should also be used to explain positive impacts, e.g. the UAV (unmanned aerial vehicles, sometimes referred to as drones) industry reduced the death rates of divers. The same happened in mining. Regulation and technical capacity will bring a boost. However, the construction industry is an example where in spite of facing many accidents, the industry would be reluctant to use very expensive machines just to improve safety. (David Bisset)

Robots bring advantages to the middle class, but not to low-income groups, although these are affected by robots. Robots are developed to improve the life of people. We should explain robotics to non-robotics people.

Applying the agreed structure for ideas generation, the **Robots, Jobs and Society** group developed the following proposals:

1. Objectives

- Solve challenges [see below]

2. Target audiences

- Policy makers
- General public:
 - young
 - adults
 - those impacted (negative)
 - those who see opportunities (positive)
 - Media
 - Industry (robotics and non-robotics)
 - Service industries (eg Health/Care)
 - Related industries (eg Cloud, Smart Cities)

3. Campaigns (based on a long-term strategy)

YOUNG PEOPLE

- Educating the media about robotics
 - Info/Exhibition/Documentation
 - Networking/personal contacts
 - Hands-on sessions, viral 'games'
 - Robotics Festivals

- Focus on creativity and how it could help society

ADULTS

- Teacher engagement (Professional development and On-line classes)
- Professional development upskilling
- Public demos with real robots, not gadgets
- Connection with mainstream media
- Union campaign

4/5. Opportunities/Challenges

- Hype – separating fact from fiction (and acknowledging that scientists/roboticists are not always good communicators)
- Keeping the public interested
- Reach/impact
- Immersion – bringing robots to people
- Show potential for entrepreneurship
- Trust
- Highlighting real issues (eg costs)
- Biased ('loaded') language that doesn't represent reality for the majority of robots (e.g. drones – military vs. civilian use)
- Widening participation (gender, backgrounds, applications)
- Showing qualities of robots that 'engage', 'can do' and that can bridge the digital divide
- Co-empower everyone to use robots

6. No 'Quick wins' were suggested.

7. Key messages

JOBS

- Robots change jobs / increase productivity
- Examples where jobs were created (and lost?) Do we have them?
- Evidence-based – will we get evidence data?
- Robotics help to further develop traditional/heritage craft skills e.g. carpentry, waste water management, stone-carving
- Robots increase safety

- Extended/More productive working life until retirement
- Training and life-long learning (with robot/co-bot)
- Robotics is a new literacy

SOCIETY

- Independent living, gymnastics for the elderly
- More participation, social inclusion, diversity, disabled, elderly
- Robots can support work/life balance e.g. agriculture
- Use of robots brings an opportunity to create new social contract
- Robots increase safety
- Robots perform tasks, they don't steal jobs

3.3. Trust, ethics and security

Misperceptions about robots result from a fear and a lack of knowledge of what robots can really do. Our society is passive and there is a mistrust of developers, companies and scientists. The perception is that robots will take jobs, resulting in an attack on the social security system and, therefore an increase in poverty and inequality. These can also become self-fulfilling prophecies.

A debate about a new social contract should be started, covering the way we pay tax and on our welfare state in general. Potential new models would emerge. Campaigns should be directed to the education system, to students and teachers, leading to inter-generational learning. Some people are more risk-averse. A key question to be answered is “who is willing to pay”? The media tends to sensationalise debate around robots and that is why there is a need to simplify the message.

In line with the agreed discussion structure, the following points were made:

1. Objectives

- To create and achieve an informed, pervasive debate

2. Target audiences

- All
- Female population (felt to be willing adopters of new features when the benefit is real)

3. Campaigns

- Launch a debate about values and include the scientific community
- Discuss new social contract that could arise from the widespread use of robots

- Inter-generational learning about robots

4. No other Opportunities were suggested.

5. Challenges

- Fear
- Lack of knowledge
- A lot of knowledge
- Lack of communication
- How to simplify the message about robotics without making it simplistic
- Passive society
- Mistrust of developers (scientists and companies)
- The threat to the welfare system and an increase in inequality
- Self-fulfilling prophecies
- Lack of money
- Sensationalism
- Unethical actors

6. Quick wins

- Set up an Outreach Advisory Board of Students
- euRobotics to provide information packs to partners.
- euRobotics to mount a communication campaign use existing networks, such as the European Parliament.

7. Key messages

- Transparency within the scientific community and in industry (caution: it may be utopian merely to expect transparency and it may therefore require some degree of reinforcement)
- Understanding the technology and its applications (but beware of being inward-facing)
- Robots are easy to use, reliable and helpful
- Open the debate about 'roboethics' – the public has a say
- Industry should involve users

- Specific use cases, for example, in healthcare and elderly care, using mundane, everyday applications
- You have the choice to engage with robotics – informed consent
- Access to the benefits of robots and issues of inequality
- Autonomous cars
- Address misconceptions (e.g. Tesla) – hot topics
- Safety by design
- Ethics
- Privacy
- Community-driven – responsible use
- Focus on cost/benefit – usefulness
- Reflecting society's norms
- Explain the governance around robots (Regulation, Standards, Testing)
- Simplify the message [image of a cartoon robot] Explain the parts
- Consumer expectation: tell the story of robots from a consumer perspective

4. Conclusions and implementation

4.1. Factors relevant for the outreach strategy

Accepting that there's no single 'magic bullet' that will deliver a successful outcome on its own, what factors would be essential?

- Recognition that the Internet of Things (IoT) and robotics are related
- Investment in robotics technology has huge gains. Siemens, Philips should invest as they will find their core markets will disappear as Japanese and US competitors take advantage
- Delivering the message(s) that robotics can create jobs and deliver sustainability
- Focus: understanding the core message and then spending the money to ensure that everyone knows it
- Emotional factor
- Strong communication network
- Skill-sets for each part of the strategy
- A champion
- Local successes (examples)

4.2. Implementation - Outreach to specific target groups

The following lists show major activities and events with participation of project partners also events that were (co-)organised by one or more partners. The list also reflected in the dissemination activities, but here grouped by the target audiences according to the Task structure of WP2.

4.2.1. Outreach to European Organisations and Policy Makers

- euRobotics and other partners took part in the following events:
 - o VDMA breakfast regarding robotic law, 28.9.2016
 - o Europe Alsace Network – Research and Innovation, meeting in Brussels regarding Healthcare regional activity, 17.2.2016
 - o Knowledge 4 Innovation Summit, 15.11.2016, <http://www.knowledge4innovation.eu/8th-eis-programme#1288>, <http://www.knowledge4innovation.eu/8th-eis-programme#1422>
 - o Participation in EP Media Seminar on Robot Law including a demonstration about future collaborative industrial robots presented by KUKA (euRobotics VP Rainer Bischoff)), see <http://www.europarl.europa.eu/committees/en/juri/public-consultation-robotics-background.html> , <http://audiovisual.europarl.europa.eu/robotic>
 - o Invitations to Mady Delvaux, MEP (ERF2016, ERW2016, OAB)
- Other contacts with policy makers
 - o Contacts with other MEPs involved in the Robot Law report
- Other contacts with European Organisations
 - o COCIR (European Coordination Committee of the Radiological, Electromedical and Healthcare IT Industry)
 - o EFFRA
 - o VDMA/EUnited robotics
 - o Lithuanian Robotics Association
 - o Spanish robotics association (Maintenance and Inspection workshop)
 - o Irish Robotics Cluster initiative
 - o French Cluster St. Quentin

4.2.2. Outreach to End Users

During the reporting period, several end users in different areas were approached. A special care has been taken to include end users in the Healthcare field, as well as in the focus areas identified in context of the work programme generation: agri-food robotics, inspection and maintenance, and SME manufacturing.

4.2.3. Improving public awareness

- Events:
 - o ERW 2016

- Fairs: Hannover Fair 2016, AUTOMATICA 2016 (to certain extent public)
- ERL (RoboCup + local tournaments)
- EP Media Seminar (8 Feb 2017) with KUKA, see above
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Final remark: the strategy will be refined and further implemented. D2.3 will be an update on this deliverable.