



European Coordination Hub for Open Robotics Development Plus Plus



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## ECHORD++ Review Meeting Reporting Period 3; Work package 4

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## Overview of Presentation

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- **Summary of outcomes since last reporting period**
- **Consolidation of RIFs**
- **Performance record since July 2015**
- **Further Examples of engagements**
- **Some key observations**
- **Challenges ahead**

# Summary

- In the 17 months since the end of the second reporting period, the RIFs have had 509 new interactions.
- This period has also experienced a two-fold increase in the number of large businesses engaging with the RIFs from a total of 71 to 143 organisations between July 2015 and Nov 2016.

# Summary

- **Start -up companies and SMEs continue to be the main beneficiaries accounting for a combined 52% of overall activity, and make up 71% of the total 97 (six week) collaborations since the programme began.**
- **It is realised that a degree of flexibility needs to be given to each RIF to address specific local, procedural and other differences between the various locations and in respect of each facility's strengths and weaknesses.**

# RIF objectives of period 3

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- Continued awareness generation of the RIF / ECHORD++ programme
- Develop a branding strategy for the RIFs
- Develop a marketing & communication plan for all RIFs and Produce RIF videos
- Influence gender balance (within robotics)

## Continued awareness generation of the RIF / ECHORD++ programme

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- All RIFs have participated in awareness generation events, examples include:
- Competitions at RIF@PisaPeccioli
- Participation of RIF@Paris-Saclay in dissemination events
- RIF@Bristol providing regular workshops for a major UK banks' clients
- Presence of RIFs at exhibitions and trade shows
- RIF@PisaPeccioli and RIF@Bristol have developed presence on social media

# Develop a branding strategy for the RIFs

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- All RIFs with the aid TUM or by their own initiative have developed videos to showcase their resources and capabilities, these have been shown at various national & international events including Automatica 2016, RoboBusiness Europe and the Hannover Messe

# Develop a branding strategy for the RIFs

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- A global RIF identity is yet to be established or implemented. In future a common brand for all three RIFs may be a basic descriptor with each RIF developing its own specific sub-brand suited to its ecosystem.
- RIFs must become known as competence centres for innovative robotics and automation



# Influence gender balance (within robotics)

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- Continuous effort has been made to impact this area, the three RIFs currently have 11 females in a total work force of 38 or around 30%.

## Some initial observations

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- RIFs must be marketed to attract clients, ‘Build it and they will come’ is not effective, this requires effort, people and budget
- RIFs must be located where local demands are sufficient to ‘Pump Prime’ with collaborations
- RIFs benefit from co-location in established research institutions
- RIFs occupy the space between Research Labs and System Integrators

## Some initial observations

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- **RIFs should be populated with or have access to personnel who have a wide range of experience and are able to interact with industry and commercial organisations as well as incubatees, start-ups and SMEs**
- **Human resources are critical to ensure RIFs can provide a timely service for their clients and manage expectations**

# KPIs and Impact

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**There is a need to develop simple and meaningful indicators of impact. Measures such a Gross Value Added, Jobs Safe Guarded or Created, Patents Registered or IP Generated fall some ways short of being quick and meaningful RIF performance measure.**

**This area will be discussed in a forthcoming meetings between the RIFs and TUM.**

## WP 4 progress

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# Performance to date

# WP4 Progress

## Global RIF Group

### RIF User Type: Breakdown by Activity (RUNNING TOTAL)

Unique clients: 948

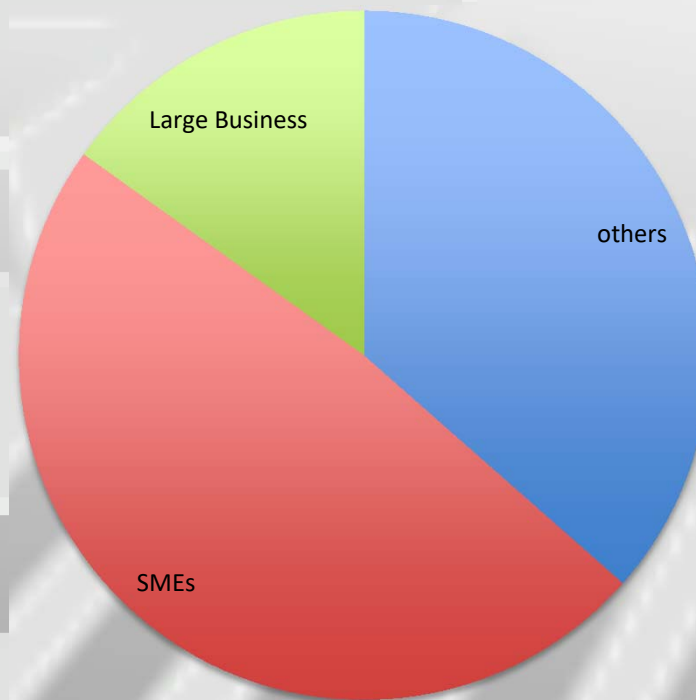
Digital Media	Twitter Followers	LinkedIn Contacts	Facebook Fans	YouTube Views	Email - Organisations	Email - Individuals	TOTAL
Connections	1632	0	0	5914	1957	4058	13561

Interactions	Researcher	Entrepreneur	Start-Up	SME	Large Business	Public Body	Research Centre	HEI	Network	TOTAL	% of Interactions
InfoDays	47	0	0	33	1	3	0	9	0	93	9%
RIFLaunches	51	0	6	101	20	8	5	5	6	202	20%
External Events	0	0	8	81	29	7	19	3	64	211	21%
Collaborations	6	0	14	55	21	0	1	0	0	97	10%
Workshops	32	3	8	149	40	9	2	13	6	262	26%
Market Assessment	0	0	6	2	0	0	0	0	0	8	1%
Internships	29	-	-	-	-	-	-	-	-	29	3%
E++ Experimenters	0	0	0	5	2	0	3	0	0	10	1%
Pipeline	0	2	3	56	32	1	3	2	3	102	10%
	165	5	45	482	145	28	33	32	79	1014	

	Researcher	Entrepreneur	Start-Up	SME	Large Business	Public Body	Research Centre	HEI	Network	TOTAL
Unique Clients	145	4	38	459	143	21	28	37	73	948
% of Total Clients	15%	0%	4%	48%	15%	2%	3%	4%	8%	

# Consolidation of RIFs

**Global RIF Users Breakdown  
(as of 30 Nov 2016)**



# RIF@Bristol



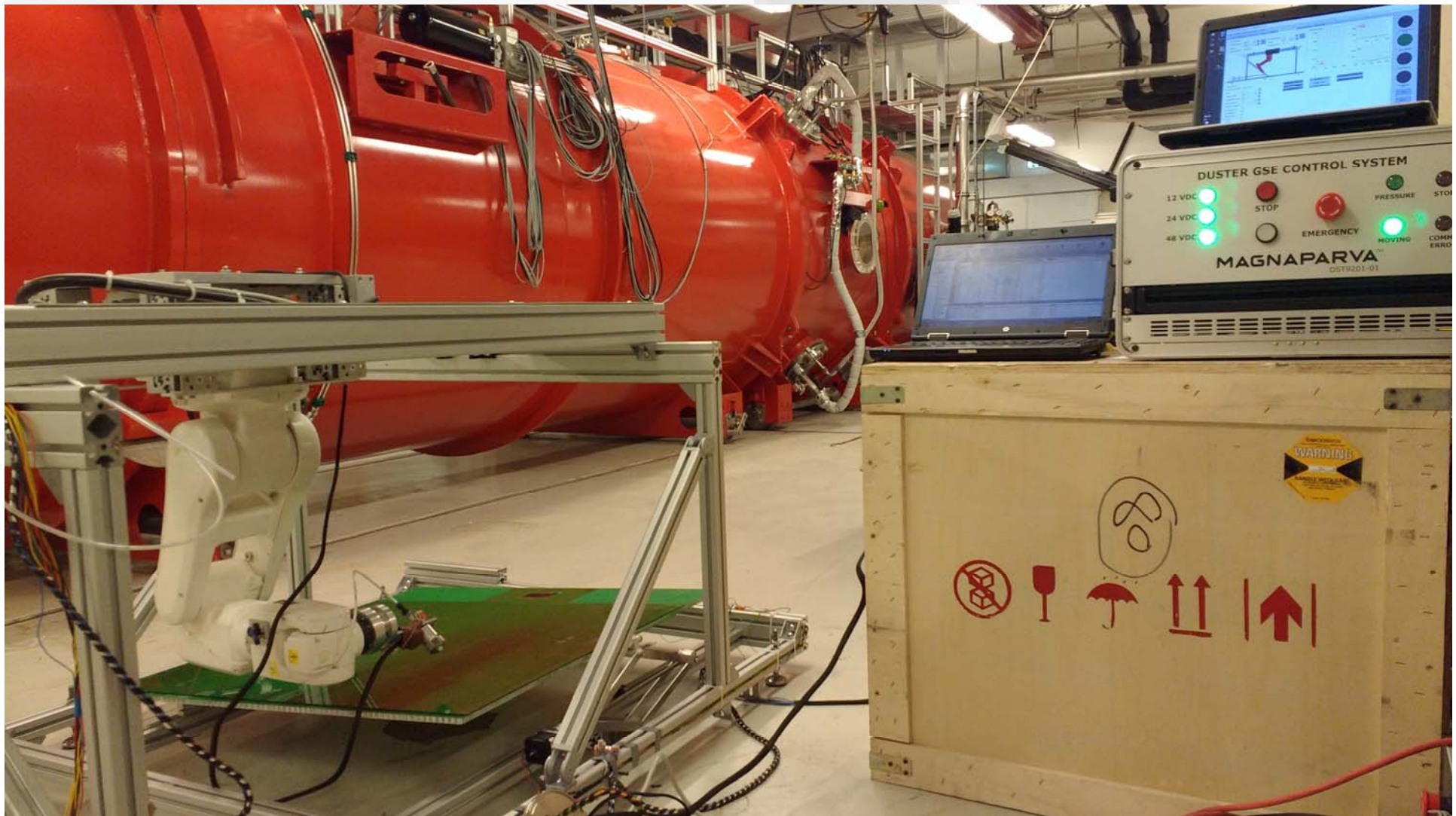
# Examples of engagements in Bristol

## Examples of recent RIF engagements

Protecting robot for work in dusty environment for simulation of mission to Martian surface.

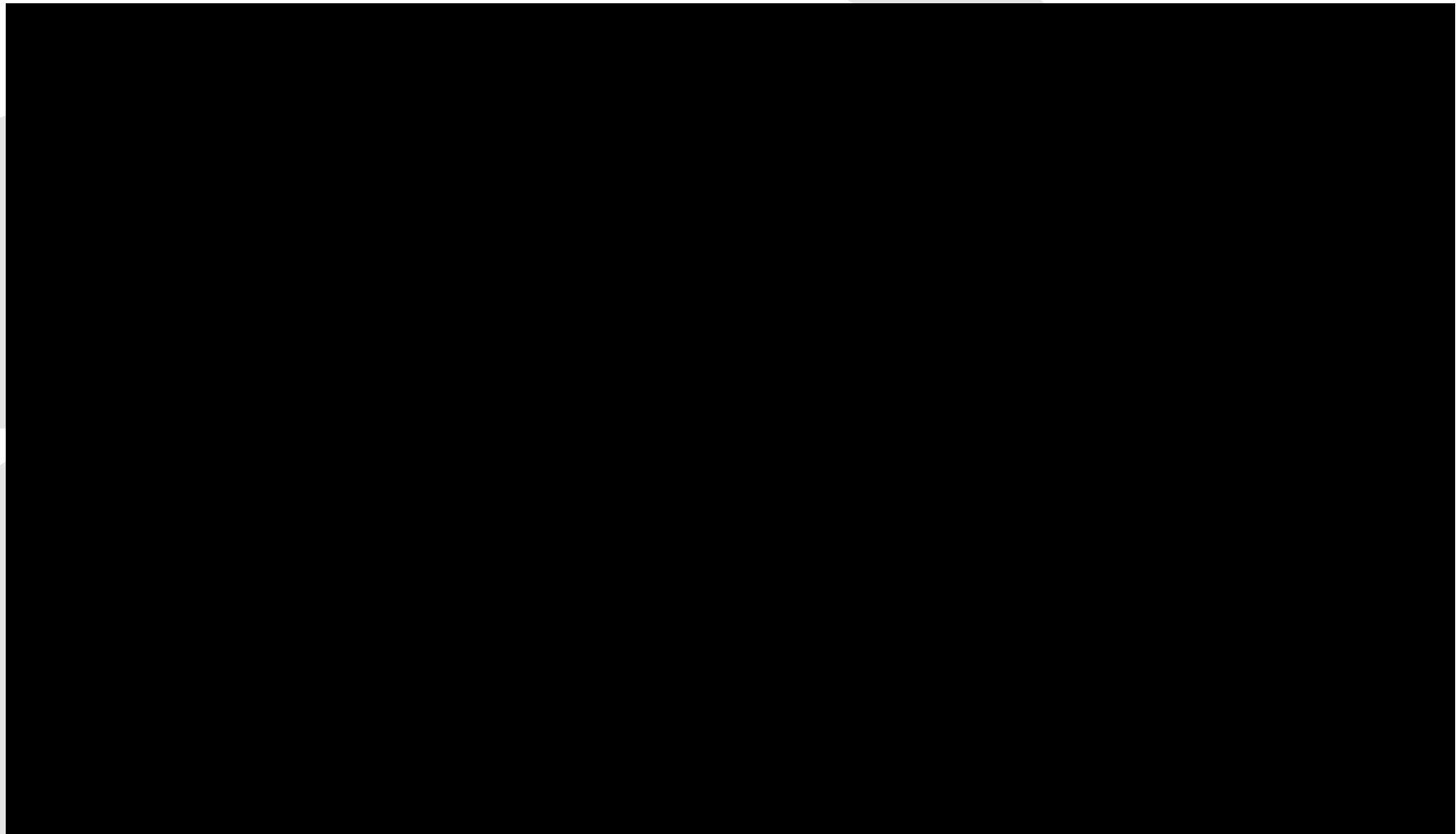






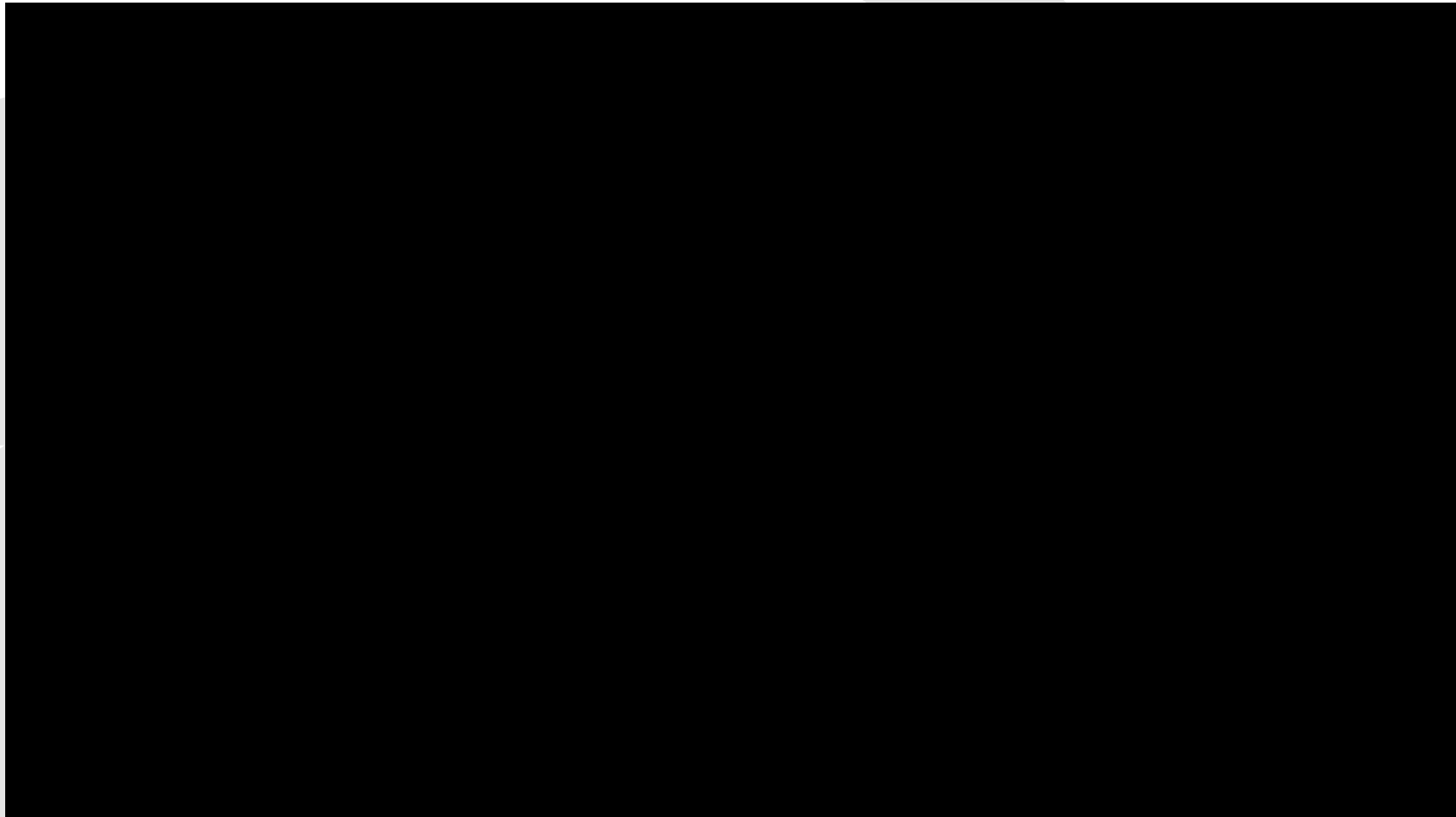
## Examples of recent RIF@Bristol collaboration:Numatic

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## Examples of recent RIF@Bristol Collaboration: Reach

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## Examples of on-going RIF@Bristol collaborations

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- **Sensor start up – Elastic Strain gauge- Denmark**
- **Magazine Palletising SME- Czech Republic**
- **Incubatees-Stroke patient recovery-Uk**
- **Drug development start-up-manipulation of chemical test tubes-UK**
- **Large Rail company-repair of rail chocks-UK**
- **SME- Assisting the elderly in wearing compression socks**
- **Start-ups in UWE Future Space**
- **Members of BRL incubator**



# Collaboration and Impact

## Examples of Collaborations at RIF@Bristol

RIF Client	Support Type						Impact				
	Category	Workshop	Consultancy	Skills Access	Feasibility Study	Rapid Prototyping	KTP	VC	Other Funding	Staff Levels	Post-Engagement
AAS Hooke Park	SME		Y	Y	Y		£120k			1	Expansion of teaching programme
Numatic International	SME	Y	Y	Y	Y		£120k			2	Robotics roll-out due 2017
Walk To Beat	Start-up		Y	Y	Y	Y		£10k		1 to 2	Commercialisation due end 2017
Reach Robotics	Start-up		Y	Y		Y		>£1m		2 to 18	Product launch Dec 2016
Magna Parva	SME		Y	Y	Y						Further research with ESA
Folium Optics	Start-up	Y	Y		Y	Y			>£1.25m	4 to 20	Maturity to SME 2016



## Sustainability and future challenges of RIFs

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- **Developing a business plan based on**
  - **Training**
  - **Consultancy**
  - **Competitive bidding**
  - **Dissemination and residency**

# Dissemination at RIF@BRL

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- Peccioli and Bristol ventured into Social Media creating new accounts on Twitter; and to date have 401 & 1401 followers respectively
- Bristol created and launched its YouTube Channel
- Bristol produced a series of case study videos, shared via its YouTube channel
- Bristol in collaboration with NatWest Bank has produced a video of the RIF@Bristol facility and delivers regular presentations to the bank's clients.

# All RIFs Outreach Interactions



# RIF@Bristol Activities Interactions



# Thank you!

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