Services to support FAIR Data

The third and final series of workshop on **Services to support FAIR data**, co-organised by FAIRsFAIR, OpenAIRE, RDA Europe, EOSC-hub and FREYA.

Prague, April 12, 2019

Vienna, April 24-25, 2019

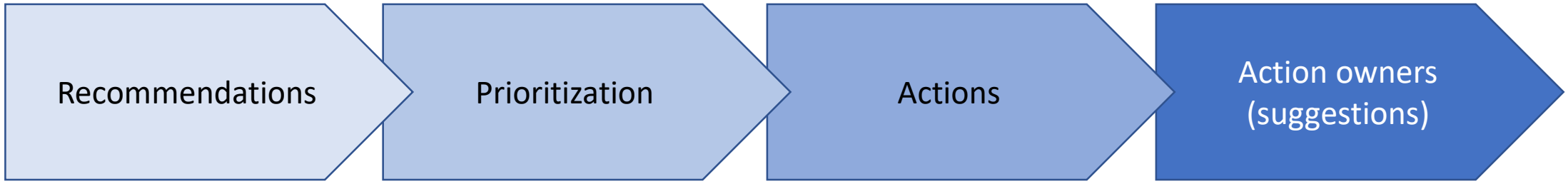
Porto, Sept 18, 2019

First, about you..

Which stakeholder category best describes the organization that you work for?

- Research institution
- Library
- Publisher/Scholarly Societies
- Service Provider/Infrastructure
- Funding agency/Government agency
- Other

Services to support FAIR Data



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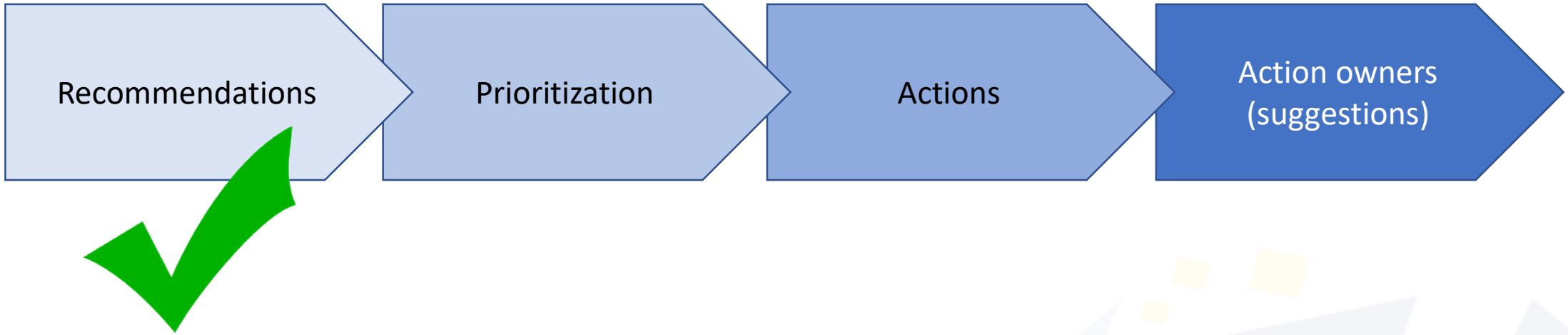

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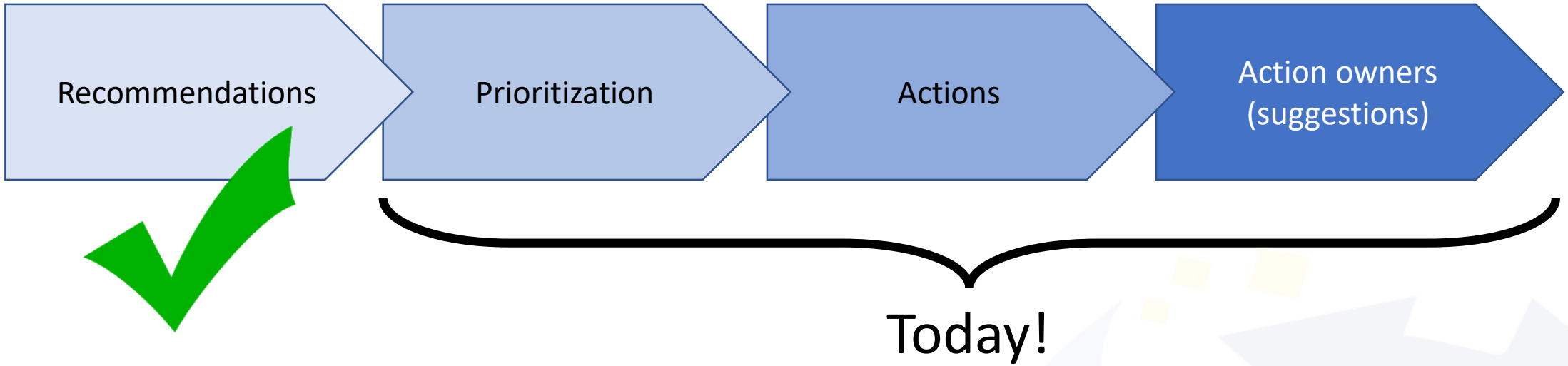

WORK
AHEAD

We need YOU!

And we need our panel:

- Ian Duncan, Australian Research Data Commons: ARDC
- Françoise Genova, Centre de Donnés Astronomiques de Strasbourg and EOSC FAIR WG
- Odile Hologne, French Institute for Agricultural Research, EOSC RoP WG and FAIRsFAIR Champion
- Rachael Kotarski, The British Library, EOSC FAIR WG
- Tobias Weigel, DKRZ and EOSC Architecture WG

Agenda

- **09:00 – Introduction**
- **09:20 – Break-outs; per group:**
  - Prioritize list of recommendations
  - Assign actions to the top-3 recommendations
- **09:50 – Report-back from break-outs in plenary**
- **10:05 – Solicit feedback from audience on action owners**, i.e. who could/should (or is already) taking the identified actions forward?
- **10:20 – Panel discussion & reflection:**
  - Panel view on prioritization of recommendations
  - Focusing on prioritized recommendations and tasks, what is already happening and what should get more attention?
- **10:55 – Closing**

Recommendations: Certification

- Certification mechanisms and capability maturity models need to be further developed for and embraced by services to align with FAIR Principles
- Data repositories should undergo FAIR aligned certification such as CoreTrustSeal

https://bit.ly/2P6CjJ6

Recommendations: Essential Infrastructure Components

- PID services for a wide range of objects, such as publications, researchers, data sets and organisations. Emerging PID types (e.g. for instruments) should be monitored and used when they are mature
- Domain-specific ontologies, as domain-specific requirements have to be taken into account
- If applicable, metadata that complies with appropriate (domain) standards should be generated and captured automatically (e.g. by instruments)
- Human and machine-readable standards to make datasets findable, reusable and interoperable (licences as one particular example of standards needed for machine readability)

Recommendations: Stewardship

- Support preservation and appraisal of research outputs: Improve and maintain FAIRness of data objects over time and the long-term usability and findability of datasets
- Establish data stewardship programmes providing simple and intuitive training for researchers, and enable data stewards and researchers who support applications of FAIR

Recommendations: Costs

- Determine the cost for services to align with FAIR principles including for data management support, maintenance and long-term preservation
- Develop a sustainable funding model (of services) taking into account that there might be additional costs for FAIR
- Provide support when determining the cost of data management as this is typically underestimated or unknown

Recommendations: Rewards

- Consider FAIR compliance and data sharing as part of research assessment, among other criteria
- References to use certified Trustworthy Digital Repositories (TDRs) in Data Management Plans should be recognised and recommended by funders

Recommendations: Collaboration and Support

- Set-up and participate in cross-institutional, collaborative communities of practice to advance and implement FAIR services
- Foster global collaboration on FAIR implementation challenges and emerging solutions through organisations such as the Research Data Alliance
- Create practical guidelines on how to enable FAIR in repositories
- Provide skilled legal advisers in institutions to help in preparing robust DMPs

Recommendations: Data management

- There should be a data selection policy that – pre-deposit – recognises that not all research outputs must meet the highest levels of FAIRness, and recognizes what has long term value, and has effect immediately after generation
- Data Management Plans should be required early when applying for funding and must have organisational relevance
- Legal aspects should be taken into account from the start of a project

Break-out time!

- **Split** in 6 different groups according to your stakeholder category:
  - Research institution -> Rene
  - Library -> Emilie
  - Publisher/Scholarly Societies
  - Service Provider/Infrastructure -> Maaike
  - Funding agency/Government agency
  - Other
- You each get 10 **stickers**. Distribute them over the recommendations (on the poster) as you see fit. More stickers = higher priority. Don't keep any..
- **Discuss** top-3 recommendations
- Formulate 1 or 2 concrete **actions** that will help realize the recommendation.

Break-out time!

- **Split** in 6 different groups – organized ‘randomly’
- You each get 10 **stickers**. Distribute them over the recommendations (on the poster) as you see fit. More stickers = higher priority. Don’t keep ajy
- **Discuss** top-3 recommendations
- Formulate 1 or 2 concrete **actions** that will help realize the recommendation.

Break-out group: Research institutes (team Rene)

Establish data stewardship programmes providing simple and intuitive training for researchers, and enable data stewards and researchers who support applications of FAIR
Foster global collaboration on FAIR implementation challenges and emerging solutions through organisations such as the Research Data Alliance
If applicable, metadata that complies with appropriate (domain) standards should be generated and captured automatically (for e.g by instruments)
Consider FAIR compliance and data sharing as part of research assessment, among other criteria
Data Management Plans should be required early when applying for funding and must have organisational relevance

Break-out group: Library (team Emilie)

PID services for a wide range of objects, such as publications, researchers, data sets and organisations. Emerging PID types (e.g. for instruments) should be monitored and used when they are mature
Support preservation and appraisal of research outputs: Improve and maintain FAIRness of data objects over time and the long-term usability and findability of datasets
Consider FAIR compliance and data sharing as part of research assessment, among other criteria
There should be a data selection policy that – pre-deposit – recognises that not all research outputs must meet the highest levels of FAIRness, and recognizes what has long term value, and has effect immediately after generation

Break-out group: Service/infra providers (team Maaike)

Domain-specific ontologies, as domain-specific requirements have to be taken into account
If applicable, metadata that complies with appropriate (domain) standards should be generated and captured automatically (for e.g by instruments)
Create practical guidelines on how to enable FAIR in repositories
Domain-specific ontologies, as domain-specific requirements have to be taken into account

Panel input (collected *before* meeting)

Recommendation	Theme	Panel score (normalize	Panel rank (discrete)
Set-up and participate in cross-institutional, collaborative communities of practice to advance and implement FAIR services	Collaboration and Support	1,00	1
Foster global collaboration on FAIR implementation challenges and emerging solutions through organisations such as the Research Data Alliance	Collaboration and Support	1,00	1
PID services for a wide range of objects, such as publications, researchers, data sets and organisations. Emerging PID types (e.g. for instruments) should be monitored and used when they are mature	Essential Infrastructure Components	0,94	1
Domain-specific ontologies, as domain-specific requirements have to be taken into account	Essential Infrastructure Components	0,94	1
If applicable, metadata that complies with appropriate (domain) standards should be generated and captured automatically (for e.g by instruments)	Essential Infrastructure Components	0,81	2
Support preservation and appraisal of research outputs: Improve and maintain FAIRness of data objects over time and the long-term usability and findability of datasets	Stewardship	0,75	2
Determine the cost for services to align with FAIR principles including for data management support, maintenance and long-term preservation	Costs	0,72	2
Consider FAIR compliance and data sharing as part of research assessment, among other criteria	Rewards	0,69	2
Certification mechanisms and capability maturity models need to be further developed for and embraced by services to align with FAIR Principles	Certification	0,66	2
Develop a sustainable funding model (of services) taking into account that there might be additional costs for FAIR	Costs	0,66	2
Provide support when determining the cost of data management as this is typically underestimated or unknown	Costs	0,45	3
Establish data stewardship programmes providing simple and intuitive training for researchers, and enable data stewards and researchers who support applications of FAIR	Stewardship	0,45	3
Data repositories should undergo FAIR aligned certification such as CoreTrustSeal	Certification	0,42	3
Human and machine-readable standards to make datasets findable, reusable and interoperable (licences as one particular example of standards needed for machine readability)	Essential Infrastructure Components	0,39	3
References to use certified Trustworthy Digital Repositories (TDRs) in Data Management Plans should be recognised and recommended by funders	Rewards	0,29	4
Create practical guidelines on how to enable FAIR in repositories	Collaboration and Support	0,26	4
There should be a data selection policy that – pre-deposit – recognises that not all research outputs must meet the highest levels of FAIRness, and recognizes what has long term value, and has effect immediately after generation	Data management	0,25	4
Data Management Plans should be required early when applying for funding and must have organisational relevance	Data management	0,22	4
Legal aspects should be taken into account from the start of a project	Data management	0,07	4
Provide skilled legal advisers in institutions to help in preparing robust DMPs	Collaboration and Support	0,00	4

Panel input (collected *before* meeting)

PRIORITIZED RECOMMENDATIONS

Set-up and participate in cross-institutional, collaborative communities of practice to advance and implement FAIR services	Collaboration and Support
Foster global collaboration on FAIR implementation challenges and emerging solutions through organisations such as the Research Data Alliance	Collaboration and Support
PID services for a wide range of objects, such as publications, researchers, data sets and organisations. Emerging PID types (e.g. for instruments) should be monitored and used when they are mature	Essential Infrastructure Components
Domain-specific ontologies, as domain-specific requirements have to be taken into account	Essential Infrastructure Components

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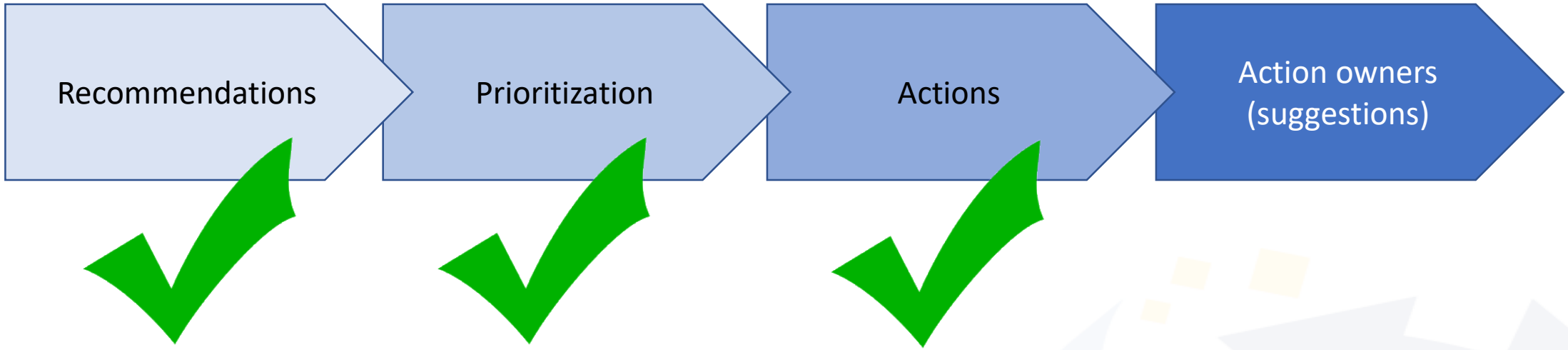

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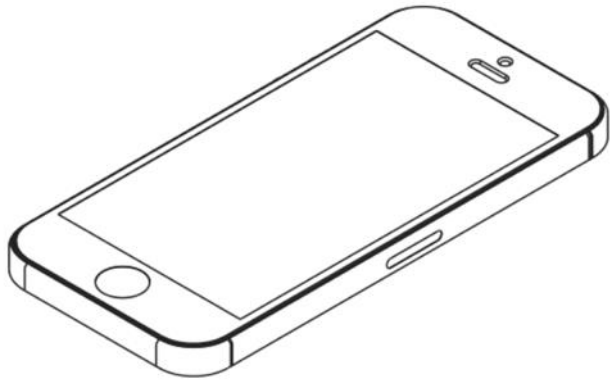

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Grab your phone

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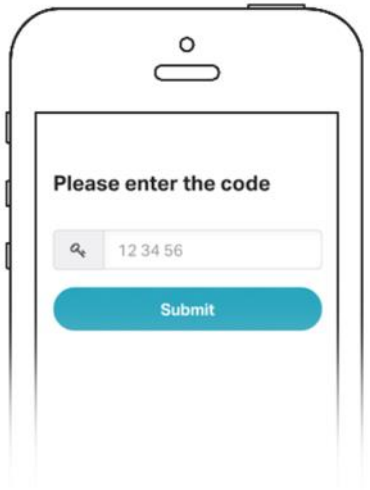
Go to www.menti.com



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Enter the code 43 68 40 and vote!

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Panel discussion

- Reflection on the prioritized recommendations & actions
- Regarding the actions, what is already happening and what should get more attention?

Service providers:
- Tools and APIs are need to make repositories FAIR. Share best practices and user stories (recomm. 16)
- Identify disciplines which don't have ontologies (recomm. 4&6)

(Create awareness for Bartoc registry and enrich it)

Libraries:
- Services should be evaluated on FAIRness (recomm. 12)
- Researchers should be rewarded for making data sets FAIR with visibility and attention (12)

Research institutions
- Identify and present cost of developing supporting infrastructure including human resources

Wrap up

- Next steps:
  - Consolidating output
  - Publishing recommendations
- Feeding into ongoing work in e.g. FAIRsFAIR task 2.4 “FAIR Services & Software”
- More work & more meetings ahead:
  - RDA Plenary 14, 23-25 Oct 2019 (Helsinki, Finland)
  - Co-located event: Building the data landscape of the future: FAIR Semantics and FAIR Repositories, 22 Oct 2019 (Helsinki)
  - Workshop: Focus on FAIR - FAIR Data and the European Open Science Cloud (EOSC), 7th Nov 2019 (Graz, Austria)
  - EOSC Symposium 2019, 26 - 28 Nov 2019 (Budapest, Hungary)
- Any additional thoughts or feedback: hylkek@surfsara.nl

Thank You!