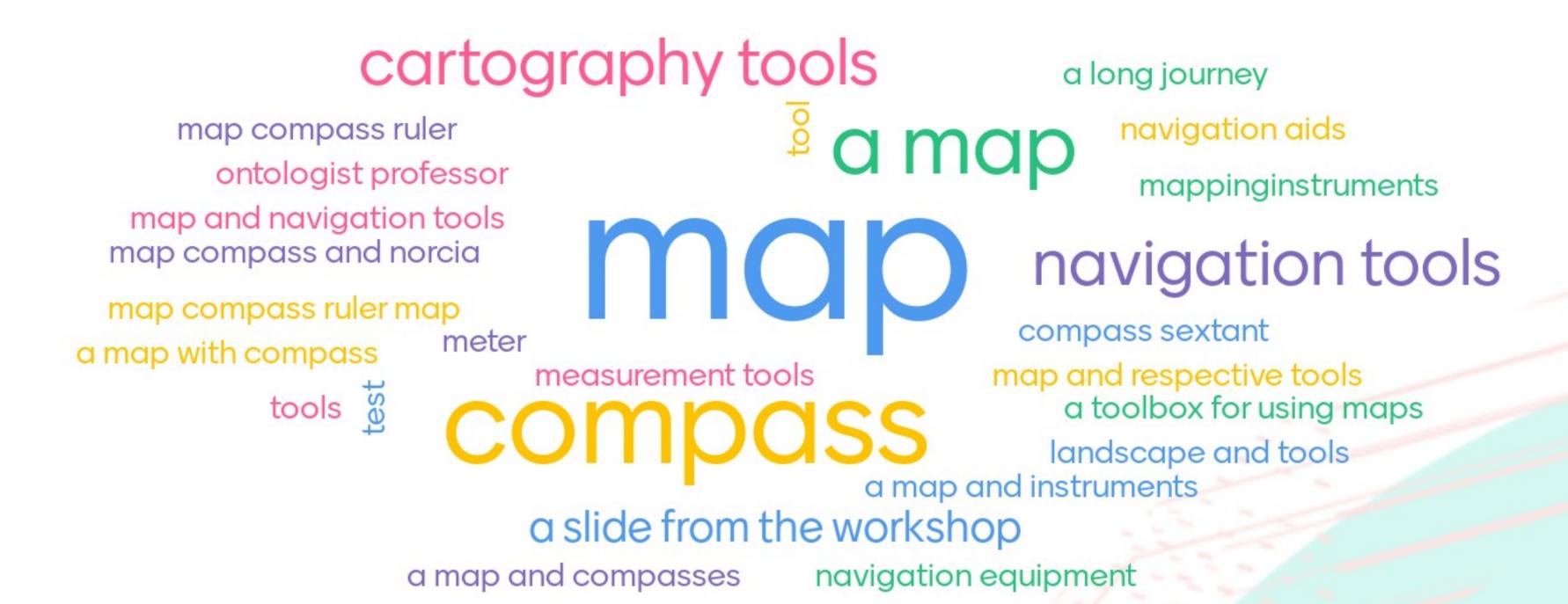
What do you see?





What is your professional role?

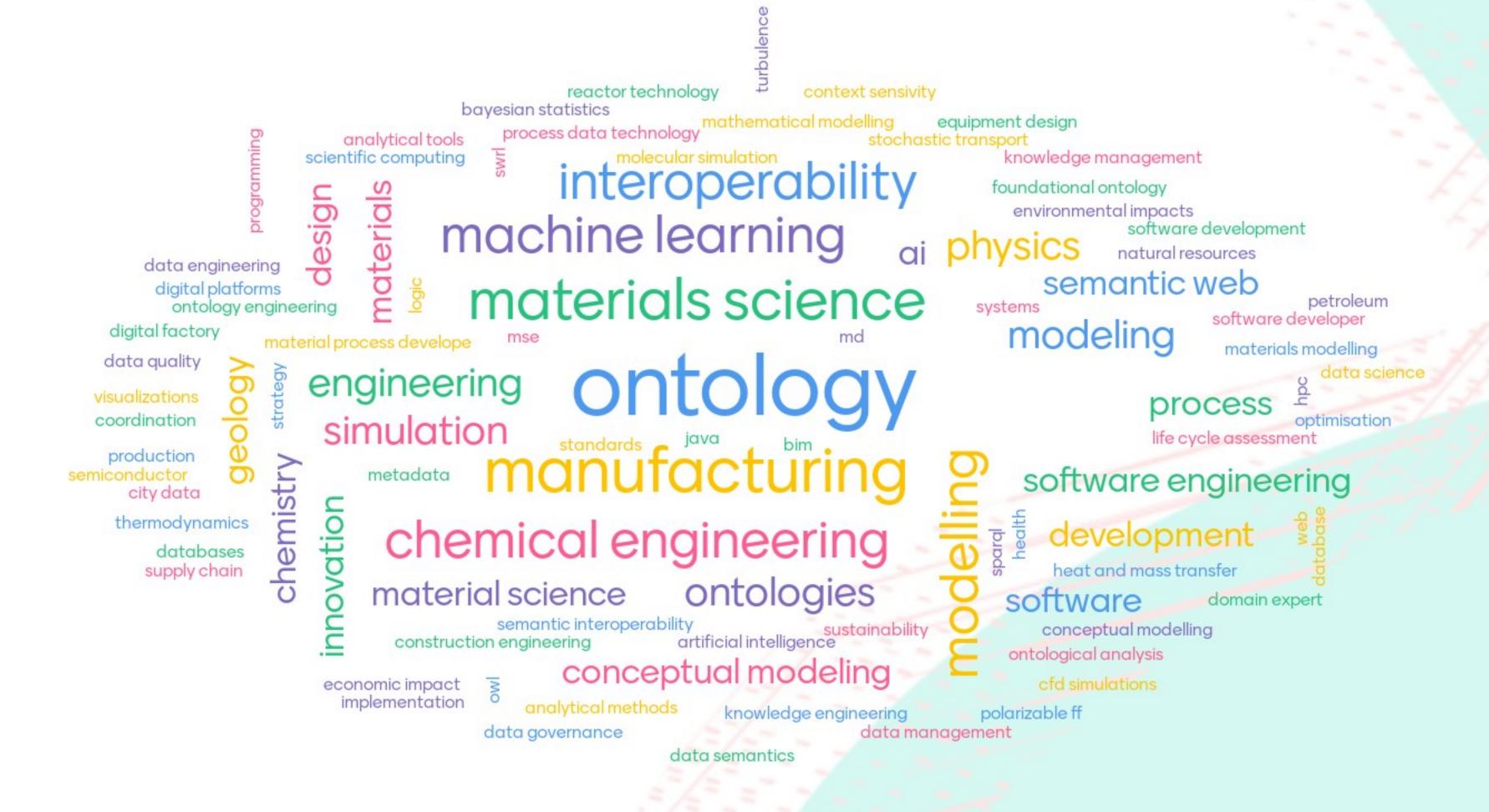


manufacturing engineer computational scientist developer innovation coordinator technology officer research associate data scientist scientist group leader researcher ingineer senior scientist project manager senior researcher ontologist professor professor research scientist data engineer management consultant



What are your main fields of expertise?

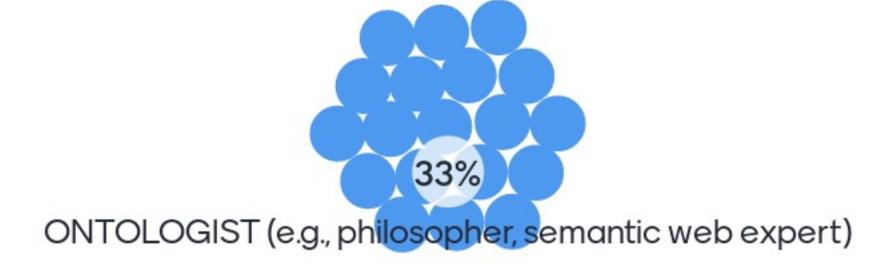






In which role are you here today?



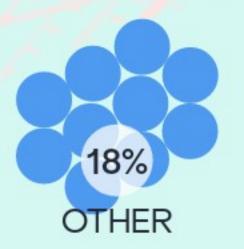














This role...

...represents well your current interests and job

...constitutes your major professional facet 3.6

Strongly agree





IOF NFDI in Germany NOMAD Laboratory

IOF EMMC Hets

OntoCAPE COGents CAPE-OPEN DEXPI CFIHOS

NOMAD Laboratory

Nomad

Nomad





Industry Ontology Foundry

Platform Material Digital (PMD)

Platform Material Digital

Industry Commons

IOF

funStep

Semantically Connected

SemiConductor Supply Chains (SC3)

European Project

IOF

Material Digital (Germany)





CoLan

IOF

OPTIMADE

VimmpMaterial digital (Germany)

IOFCOLORE

IOF, EMMC, EUOS

Dexpi, CFIHOS, POSC César

NFDI4Cat, NFDI4Chem, NFDI4Ing, NFDI e.V., RDA, EMMC, IAOA, EOSC, NIST databases **EMMC**





Industrial Ontology Foundry

EMMC, Materialsmine.org, MARDA

Manufacturing modelling semantics work at NIST; Metamodelica.

OntoCape

IOF

industry Commons

ETSI, BDVA, EDGEX FOUNDRY

IOF

UK National Digital Twin programmelSO TC 184/SC4 AHG2 - Industrial TerminologyCFIHOS





EMMCEMMOBFODOLCHEASE Optimade

BIM4EEB

Any initiative on sustainability development

MUSICODE EU

EMMC

UFO

ISO 15926, IOF, BFO, DOLCE, SAREF, IOGP, READI,

EOSC

MUSICODE





Industry common		VIMMP, Marketplace		
•	ISO 14040			



What standards (of any type) are relevant for your work?



CAPE-OPEN	EOSC	OAGi	
EMMMo	Industry4.0	IUPAC	
UBL	programming languages	EMMO	



your work?



ISO	ISA-88, ISA-95	DEXPI, OntoCAPE, SFIHOS
JSON-API	EMMO	RESQML
AS9145 and AS6500	ISO 15926ISO 21838ISO 8000	ISO 15926





your work?

ISO/TS 14048

BFO

ISA-88, ISA-99

MQTT, MODBUS, PLC, PROFINET, STEP, CAD

UML

14.0

IUPAC, Programming language

ISO REACHIUPAC

MODA CWA 17284





your work?

ISO 16739

STEP

BFO, OWL

Common LogicISO TC184 SC4ISO 20534

DOLCE

UFO

IUPAC, ISO, DIN, ASTM, DCOM

EMMO, SI, WIP, CIF, JSON, JSON-LD, ISO 80000

BFO, EMMO





MQTT, foundational ontologies

your work?

UFO

BFO

API, programming languages

INCHI, JSON-LD, Semantic Web,

ISO 5087,ISO 14224,OWL,RDF

BFO, EMMO, OWL

ISO/IEC 81346, ISO 15926, ISO 14721, Asset Administration Shell, EN 13306, EN 17007, Open source,

EMMO, EVMPO



What standards (of any type) are relevant for your work?



RDF, GeoSPARQL, OWL, INSPIRE,

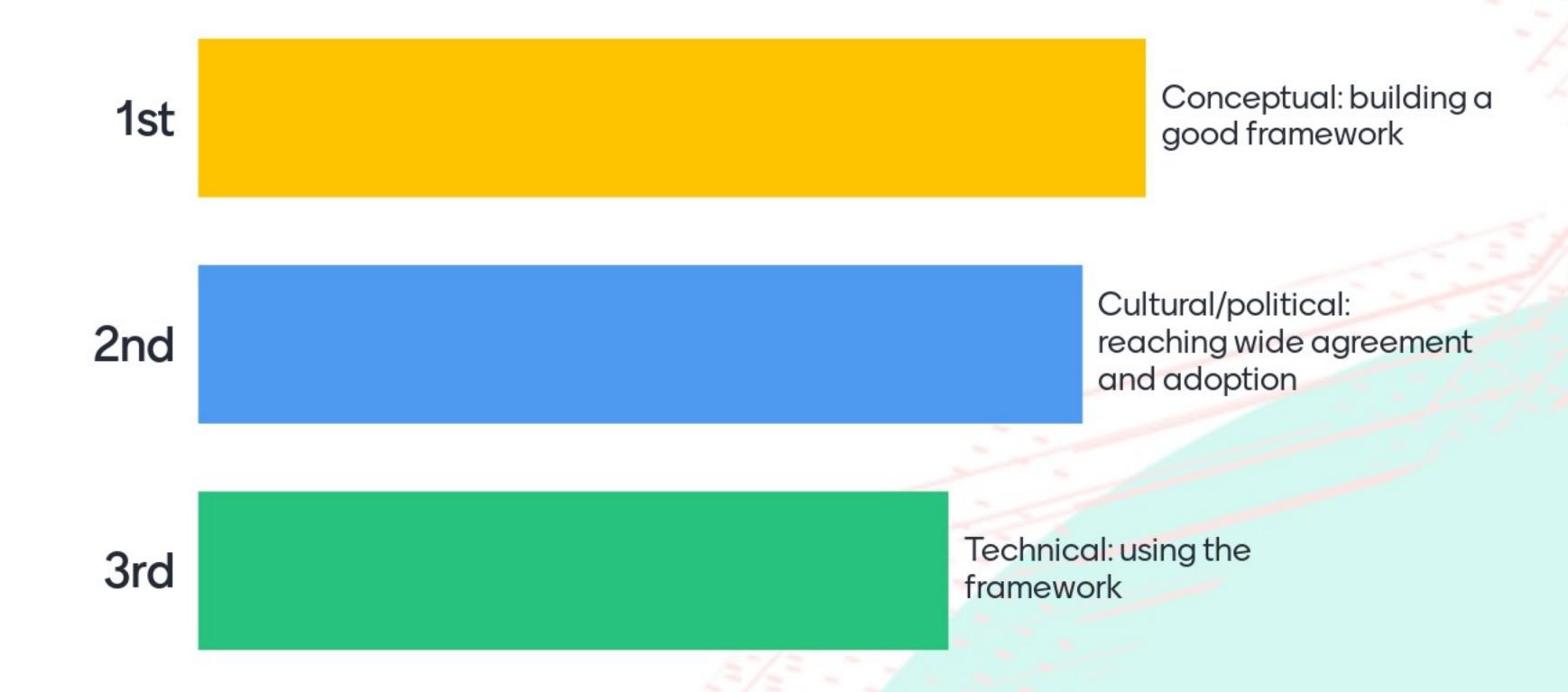




What are the main difficulties for standardization in

general?

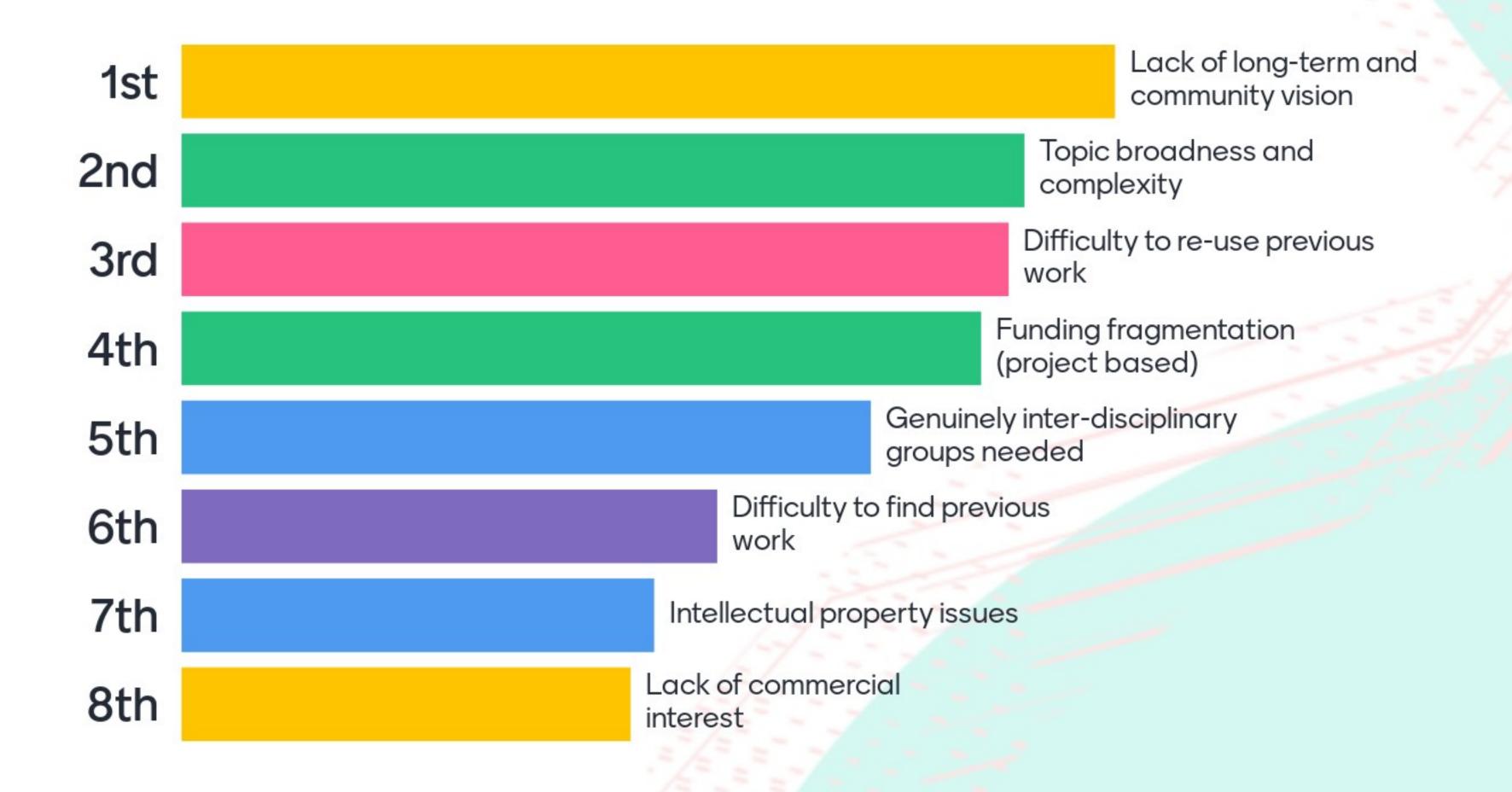






What are the main adverse factors for standardization of data documentation in M&M?



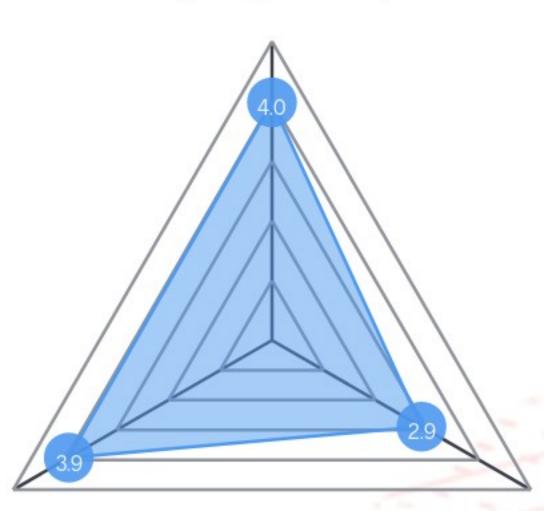






How do you value these aspects when choosing a framework/language?

High expressivity



Ease to integrate with existing/legacy assets

Low computational cost/weight



Strategies and views for the M&M field:

It was high time to look at the field as a whole

3.6

We should first create/strengthen smaller communities with more narrow focus

2.6

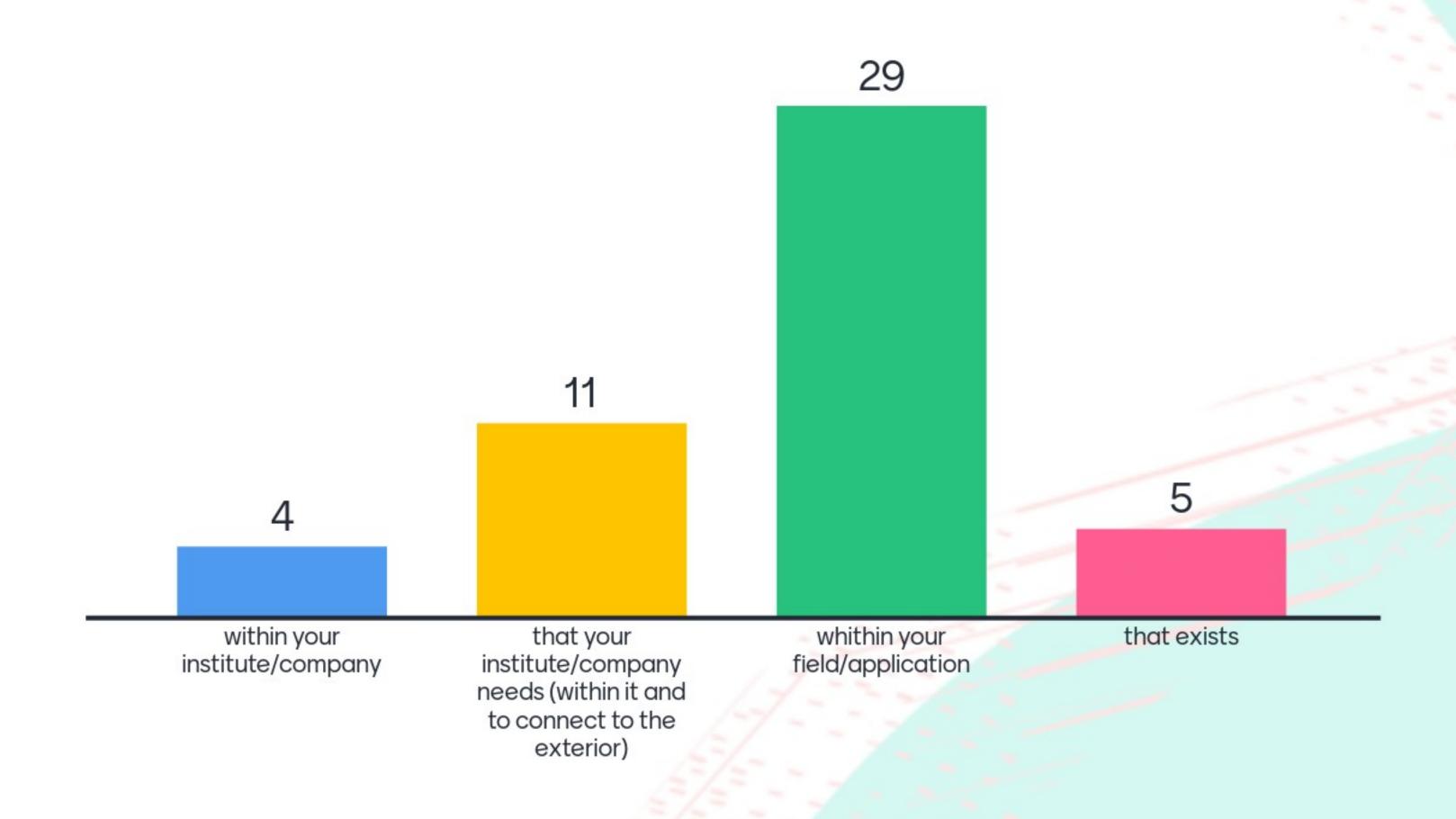
It is too ambitious to consider the whole field yet

Strongly agree



What is a desirable and reasonable aim for the next future? We Research and Innovation To standardize all the knowledge...







Which part of the semantic landscape are you more interested in?









Thermal Engineering/Process Engineering

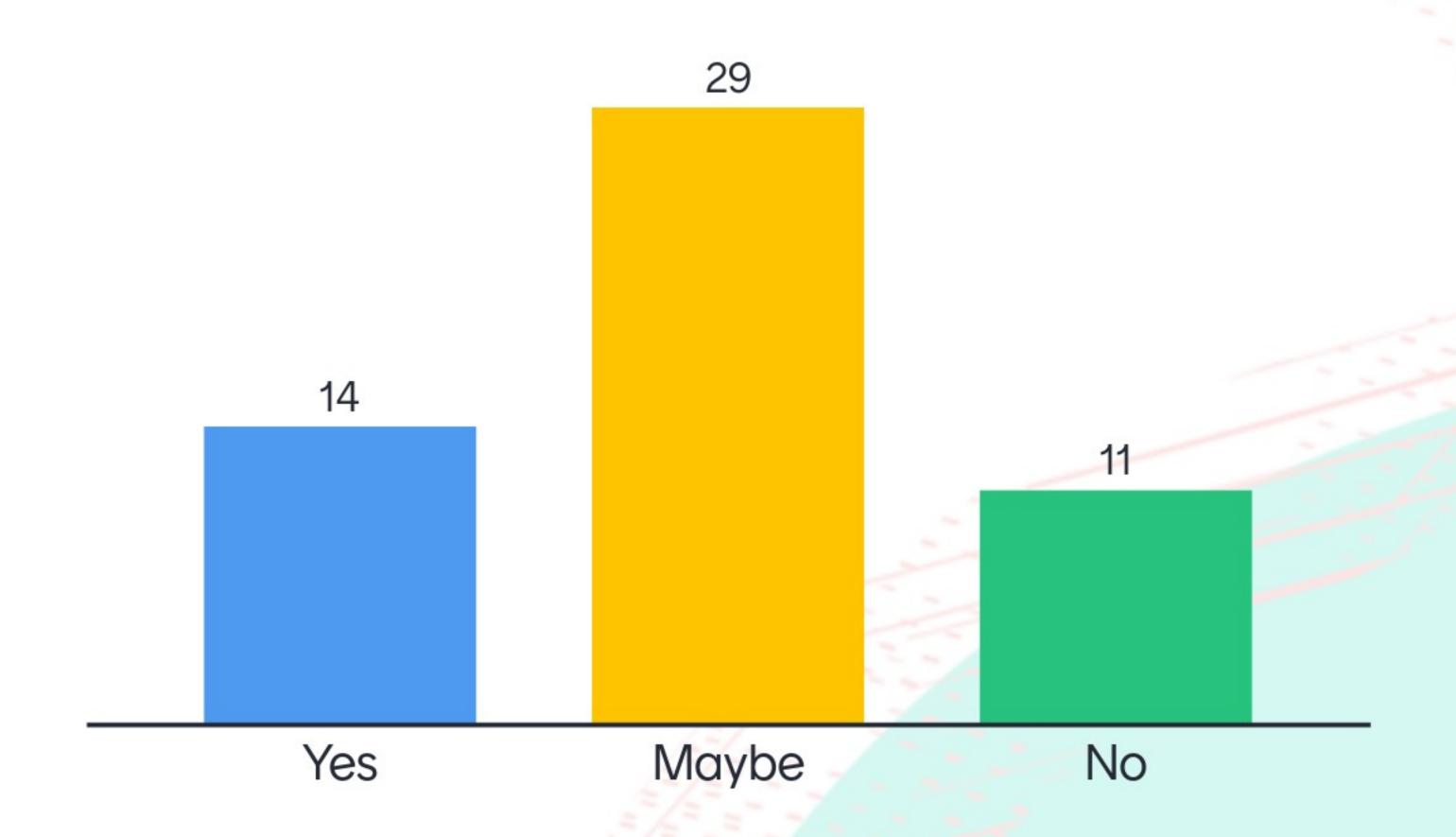


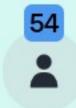
Material Science and Engineering



Do you know where to find ontologies for your field?

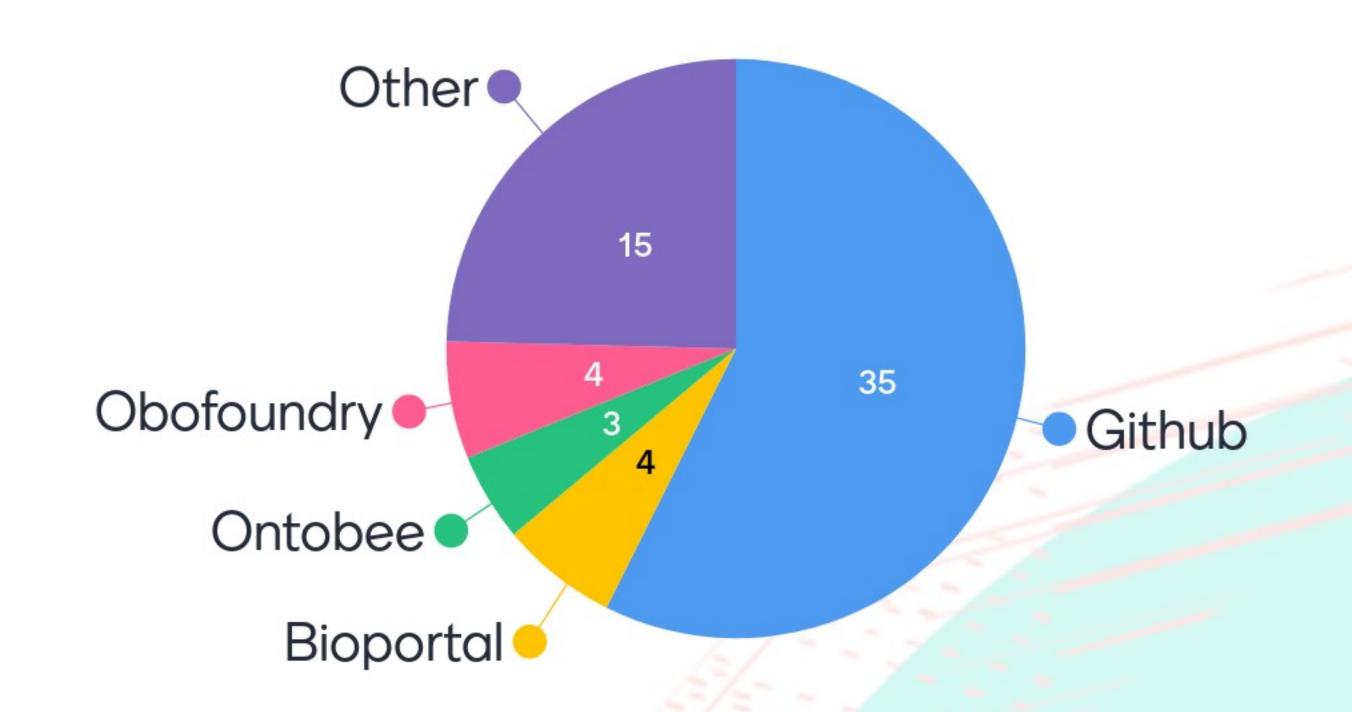






On which platforms do you publish your ontologies or look for existing ones?







Do you have a clear understanding of how semantic technologies can support your work?













semantic data integration

interoperability

replace documentation

semantic grounding, conceptual clarification

Interoperability

Interoperability

Data harmonization

interoperability

clear framing for a discipline





A better world

data integration & reasoning

Improve adoption of materials modelling routes

Data sharing

data harmonisation

interoperability

Cost savings

integration

FAIR





Improving the ability to share and integrate data from different sources.

link with other applications

interoperability with databases and models

development of cognitive support systems for cross-domain applications

Al improvements

better quality timely information to support decision making

Interoperability

interoperability

interoperability (in particular theory - experiment)





Data Integration, Semantic Web Service Rule base Reasoning

FAIR data

semantic desambiguity

better knowledge management and intelligence

Reach industrial data and supply chain data interoperability

interoperability

trust

Common language, referencing ressources, data and application integration





Data integration

FAIR

Explore implications of definitions

data sharing and integrating

Data sharing

Organizing and speed up workflow (especially data-driven)

Interoperability, Data sharing

Data interoperability

data integrationdata sharingmetadata descriptiondevelop rich applications





Interoperability

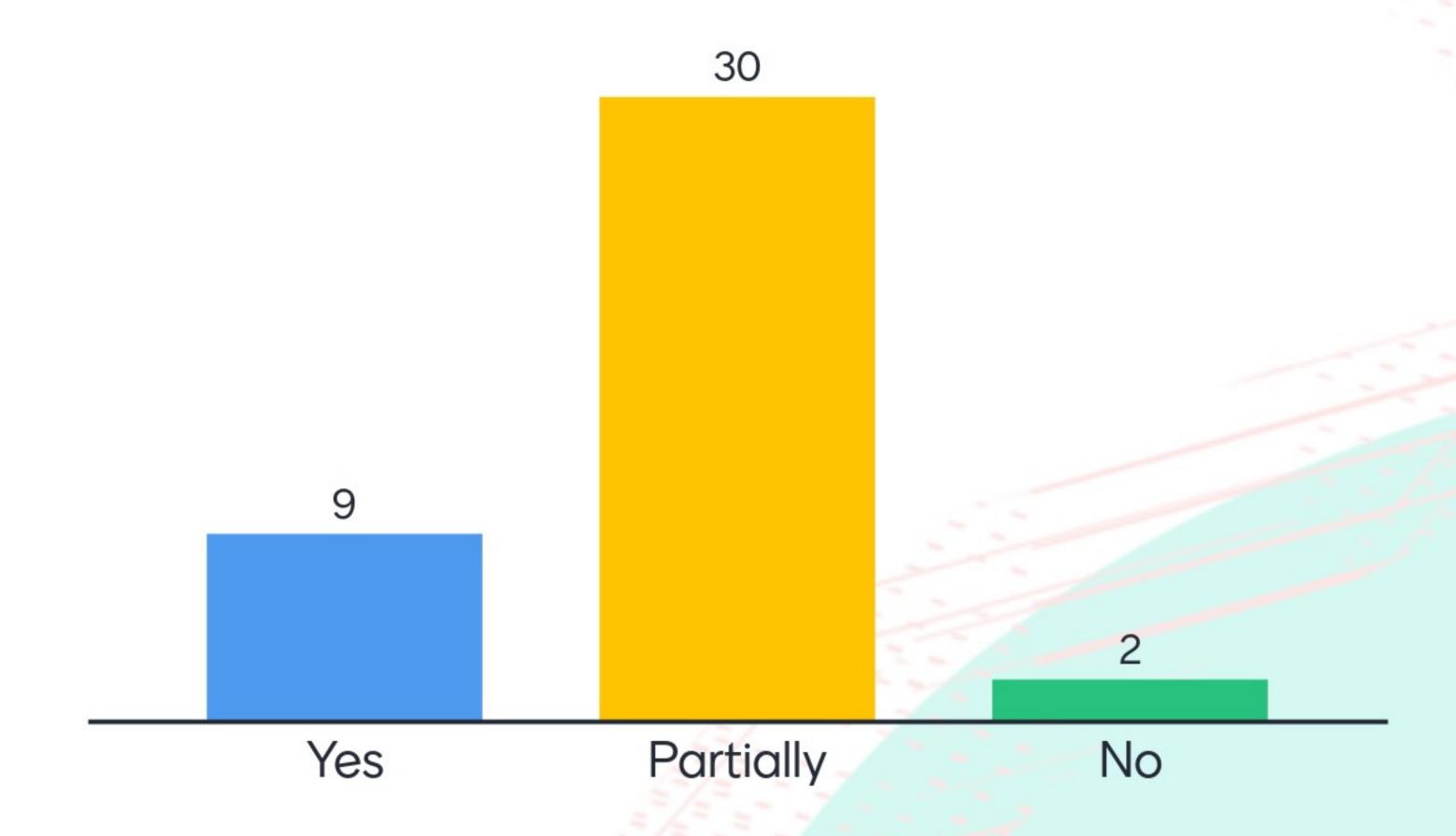
Integration of heterogeneous data

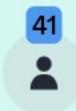
Interoperability





We used the DFG taxonomy of topics in the registration: did you find it appropriate?







Would you suggest an alternative classication of M&M topics?

no I wouldn't, the DFG system is great

Not now

No

By Industry and its domains

Not yet

I don't know

Not yet clear to me

?

not aware





Would you suggest an alternative classication of M&M topics?

?	not know	Not clear to me		
By industry domains	not clear	not clear		
No	Not yet clear	:(



A BIRD'S VIEW OF THE M&M MAP



Would you suggest an alternative classication of M&M topics?

No

			1.6	100				
٦.	-	n	Ή.	1/	n	0	W	
							vv.	

