HIFIS Survey 2021

Participant information

Who is conducting this survey?

We, a team of HIFIS Cloud (https://hifis.net/team) and HIFIS Software (https://software.hifis.net/team), are conducting this survey to learn more about your working routine as an employee within the Helmholtz Association and how HIFIS can support you in your research, software development or administrative activities.

The HIFIS platform (https://www.hifis.net) aims at providing easily accessible cloud services (https://cloud.helmholtz.de/), education & training (https://software.hifis.net/services/training) on sustainable scientific software engineering, as well as consulting services (https://software.hifis.net/services/consulting) for complex scientific problems to all 18 Helmholtz centres (AWI, CISPA, DESY, DKFZ, DLR, DZNE, FZJ, GEOMAR, GFZ, GSI, HMGU, HZB, HZDR, HZI, HZG, KIT, MDC, and UFZ) and scientific communities. Sharing your experiences will help us to improve our services and contribute to an excellent Helmholtz-wide information environment.

How long will it take?

There is a variable number of questions in this survey and it will take max. 20 minutes to complete.

We encourage you to complete the survey in one sitting but you can also use the `Resume later` button to save your responses.

The survey may be cancelled at any time without negative consequences by using the `Clear and Exit` button in the upper right corner.

What will happen with the data?

Data will be collected without saving your IP address and then stored on a DLR-internal server.

We will not collect any data concerning your name, age, gender, or contact details.

Responses will be analysed and results published anonymously in an internal or scientific report or a blog post.

An anonymised dataset might also be published on a designated platform to ensure reproducibility of the results.

There are 45 questions in this survey.

General

Thank you for participating in the HIFIS survey.

Please read carefully and answer each of the following questions with respect to your individual working routine.

Which Helmholtz centre do you mainly work for? *

Please choose **only one** of the following:

◯ **AWI** - Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research

◯ **CISPA** - Helmholtz Center for Information Security

◯ **DESY** - Deutsches Elektronen-Synchrotron

◯ **DKFZ** - German Cancer Research Center

◯ **DLR** - German Aerospace Center

◯ **DZNE** - German Center for Neurodegenerative Diseases

◯ **FZJ** - Forschungszentrum Jülich

◯ **GEOMAR** - Helmholtz Centre for Ocean Research Kiel

◯ **GFZ** - Helmholtz Centre Potsdam - German Research Centre for Geosciences

◯ **GSI** - Helmholtz Centre for Heavy Ion Research

◯ **HGF** - Head Office

◯ **HMGU** - Helmholtz-Zentrum München - German Research Center for Environmental Health

◯ **HZB** - Helmholtz-Zentrum Berlin für Materialien und Energie

◯ **HZDR** - Helmholtz-Zentrum Dresden-Rossendorf

◯ **HZG** - Helmholtz-Zentrum Geesthacht Centre for Material and Coastal Research

◯ **HZI** - Helmholtz Centre for Infection Research

◯ **KIT** - Karlsruhe Institute of Technology

◯ **MDC** - Max Delbrück Center for Molecular Medicine in the Helmholtz Association

◯ **UFZ** - Helmholtz Centre for Environmental Research

◯ I do not work for a Helmholtz centre.
 I work for

[   ]

How many years have you been working within the Helmholtz Association? *

Please choose **only one** of the following:

◯ Up to one year

◯ More than one year up to three years

◯ More than three years up to six years

◯ More than six years up to ten years

◯ More than ten years

◯ I have never worked for a Helmholtz centre

Note: Accumulated time you have worked for any Helmholtz centre

Which of the following groups do you consider yourself mostly a member of? *

Please choose **only one** of the following:

◯
Research staff:
My daily work is focused on achieving research results, e. g. through working in research projects

◯
Infrastructure staff:
I contribute to the operation of a research infrastructure, e.g. an accelerator, research ship, satellite system, microscopy

◯
IT staff:
I work in an IT department or compute centre and contribute to run the IT infrastructure including user support

◯
Administration staff:
I work in administration, e.g. human resources, finance, controlling, facility management, management

Which is your main Helmholtz field of research? *

Only answer this question if the following conditions are met:
Answer was '
Research staff:
My daily work is focused on achieving research results, e. g. through working in research projects

' *or* '
Infrastructure staff:
I contribute to the operation of a research infrastructure, e.g. an accelerator, research ship, satellite system, microscopy

' at question '3 [Q003]' (Which of the following groups do you consider yourself mostly a member of?)

Please choose **only one** of the following:

○ Aeronautics, space and transport

○ Earth and environment

○ Energy

○ Health

○ Information

○ Matter

Software

Did you develop software or write code as part of your job in the last twelve months? *

Please choose **only one** of the following:

○ No

○ Yes

How do you rate your software development / code writing expertise? *

Please choose **only one** of the following:

◯ 1 - Beginner

◯ 2 - Competent

◯ 3 - Proficient

◯ 4 - Advanced

◯ 5 - Professional

◯ I do not develop software

How much of your working time did you spend on software development or code writing in the last twelve months? *

Only answer this question if the following conditions are met:
Answer was NOT 'I do not develop software' at question '6 [Q006]' (How do you rate your software development / code writing expertise?) *and* Answer was 'Yes' at question '5 [Q005]' (Did you develop software or write code as part of your job in the last twelve months?)

Please write your answer here:

Approx.

[   ]

%

Do you consider yourself a research software engineer (RSE)? *

Only answer this question if the following conditions are met:
Answer was NOT 'I do not develop software' at question '6 [Q006]' (How do you rate your software development / code writing expertise?)

Please choose **only one** of the following:

◯ No

◯ Yes

◯ Not sure

Is there a research software engineer (RSE) in your working group? *

Please choose **only one** of the following:

◯ No

◯ Yes

◯ Not sure

Note: not including you

Cloud

Which tools, services or IT-related workflows consume most of your time to be set up and / or served? *

Please choose **all** that apply:

☐ Applying for / getting access to computation time

☐ Handling of (large) data sets for temporary use: sharing, access for computation, etc.

☐ Handling of (large) data sets for permanent storage and (public) access

☐ Collaborating efficiently on documents with my cooperation partners

☐ Maintaining accessibility to older code, documentation, data, and / or other files ("Where is the code / documentation / data / file that someone made two years ago for another project?")

☐ Setting up the IT infrastructure for a project, e.g. installation of servers, network, firewall

☐ Purchasing of hardware or software

☐ Searching for a suitable software or service

☐ Other (please specify): [_____]

Which of the following cloud services would you like to replace, if possible? *

Please choose **all** that apply:

☐ None

☐ Google Docs

☐ Dropbox

☐ GitHub

☐ Zoom

☐ Slack

☐ Amazon cloud

☐ MS Office 365 / MS Teams

☐ Skype

☐ Other (please specify): [_____]

How free are you to choose the cloud services you like? *

Please choose the appropriate response for each item:

	Never the case 0	1	2	3	4	Always the case 5
My Helmholtz centre / department has strict rules about the selection of cloud services	◯	◯	◯	◯	◯	◯
My local team lead chooses the cloud services I use	◯	◯	◯	◯	◯	◯
An external project lead chooses the cloud services I use	◯	◯	◯	◯	◯	◯
Overall, I am free to choose the cloud services I use	◯	◯	◯	◯	◯	◯

Which project groups / members outside of your Helmholtz centre did you collaborate with in the last twelve months? *

Please choose **all** that apply:

☐ None

☐ Helmholtz centres (AWI, CISPA, DESY, DLR, DKFZ, DZNE, FZJ, GEOMAR, GSI, HZB, HZDR, HZI, HZG, HMGU, GFZ, KIT, MDC, UFZ, IPP)

☐ German research institutes (Max-Planck-Gesellschaft, Fraunhofer-Gesellschaft, Leibniz-Gemeinschaft)

☐ EU research institutes

☐ Non-EU research institutes

☐ German universities

☐ EU universities

☐ Non-EU universities

☐ Industrial partners

☐ Other (please specify): _____

Which are the three most important criteria for choosing a cloud service for your projects? *

Please choose **all** that apply:

☐ Hosted in EU

☐ Immediate access

☐ Long term data storage

☐ Protection of confidential data

☐ Backup and data recovery policy

☐ High availability of the cloud service

☐ High availability of the helpdesk

☐ Open source

☐ Low or no costs for service usage

☐ Other (please specify): _____

Technology

Did you use the following version control tools in the last twelve months?

Please choose the appropriate response for each item:

	Yes	No, it is not relevant	No, it does not fit my needs	No, I do not know it	No, I do not know how	No, it is not available
Git	○	○	○	○	○	○
SVN	○	○	○	○	○	○
Mercurial	○	○	○	○	○	○

Did you use the following code hosting services in the last twelve months?

Please choose the appropriate response for each item:

	Yes	No, it is not relevant	No, it does not fit my needs	No, I do not know it	No, I do not know how	No, it is not available
GitHub	○	○	○	○	○	○
GitLab	○	○	○	○	○	○
BitBucket	○	○	○	○	○	○
Redmine	○	○	○	○	○	○
Gitea	○	○	○	○	○	○

Did you use the following automation tools or services in the last twelve months?

Please choose the appropriate response for each item:

	Yes	No, it is not relevant	No, it does not fit my needs	No, I do not know it	No, I do not know how	No, it is not available
Jenkins	○	○	○	○	○	○
Travis CI	○	○	○	○	○	○
Circle CI	○	○	○	○	○	○
GitHub Actions	○	○	○	○	○	○
GitLab CI (self-hosted)	○	○	○	○	○	○
GitLab CI (gitlab.com)	○	○	○	○	○	○

Did you use the following containerisation tools or services in the last twelve months?

Please choose the appropriate response for each item:

	Yes	No, it is not relevant	No, it does not fit my needs	No, I do not know it	No, I do not know how	No, it is not available
Vagrant	○	○	○	○	○	○
Docker	○	○	○	○	○	○
Singularity	○	○	○	○	○	○
Podman	○	○	○	○	○	○

Did you use the following tools or services in the last twelve months?

Please choose the appropriate response for each item:

	Yes	No, it is not relevant	No, it does not fit my needs	No, I do not know it	No, I do not know how	No, it is not available
OpenStack	○	○	○	○	○	○
JupyterHub	○	○	○	○	○	○
Rocket.Chat	○	○	○	○	○	○
Mattermost	○	○	○	○	○	○
Nextcloud	○	○	○	○	○	○
LimeSurvey	○	○	○	○	○	○
ShareLaTex	○	○	○	○	○	○
Jira	○	○	○	○	○	○

Education - Part 1

On which operating systems are your development environments? *

Only answer this question if the following conditions are met:
Answer was NOT 'I do not develop software' at question '6 [Q006]' (How do you rate your software development / code writing expertise?)

Please choose **all** that apply:

☐ Windows
☐ Linux
☐ MacOS

Which programming languages did you use in the last twelve months? *

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '5 [Q005]' (Did you develop software or write code as part of your job in the last twelve months?)

Please choose **all** that apply:

- [ ] Assembly
- [ ] C
- [ ] C#
- [ ] C++
- [ ] Ceylon
- [ ] Clojure / ClojureScript
- [ ] COBOL
- [ ] CoffeeScript
- [ ] Crystal
- [ ] Dart

- [ ] Delphi
- [ ] Elixir
- [ ] F#
- [ ] Go
- [ ] Groovy
- [ ] Haskell
- [ ] HTML / CSS
- [ ] Java
- [ ] JavaScript
- [ ] Julia

- [ ] Kotlin
- [ ] Lua
- [ ] MATLAB
- [ ] Octave
- [ ] Objective-C
- [ ] Perl
- [ ] PHP
- [ ] Python
- [ ] R

☐ Ruby

☐ Rust

☐ Scala

☐ Shell scripting languages (bash / shell / powershell)

☐ SQL (PL / SQL, T-SQL and other programming extensions of SQL)

☐ Swift

☐ TypeScript

☐ Visual Basic

☐ Other (please specify): [   ]

Education - Part 2

Which programming language did you use primarily in the last twelve months? *

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '5 [Q005]' (Did you develop software or write code as part of your job in the last twelve months?) *and* Answer was 'COBOL' *or* 'CoffeeScript' *or* 'Crystal' *or* 'Dart' *or* 'Delphi' *or* 'Elixir' *or* 'F#' *or* 'Go' *or* 'Groovy' *or* 'Haskell' *or* 'HTML / CSS' *or* 'Java' *or* 'JavaScript' *or* 'Julia' *or* 'Kotlin' *or* 'Lua' *or* 'MATLAB' *or* 'Octave' *or* 'Objective-C' *or* 'Perl' *or* 'PHP' *or* 'Python' *or* 'Ruby' *or* 'R' *or* 'Assembly' *or* 'C' *or* 'C#' *or* 'C++' *or* 'Ceylon' *or* 'Clojure / ClojureScript' *or* 'Rust' *or* 'SQL (PL / SQL, T-SQL and other programming extensions of SQL)' *or* 'Shell scripting languages (bash / shell / powershell)' *or* 'Scala' *or* 'Swift' *or* 'Visual Basic' *or* 'TypeScript' at question '21 [Q021]' (Which programming languages did you use in the last twelve months?)

Please choose **only one** of the following:
Only answer this question for the items you selected in question Q021 ('Which programming languages did you use in the last twelve months?')
Only answer this question for the items you did not select in question Q021 ('Which programming languages did you use in the last twelve months?')

◯ Assembly

◯ C

◯ C#

◯ C++

◯ Ceylon

◯ Clojure / ClojureScript

◯ COBOL

◯ CoffeeScript

◯ Crystal

◯ Dart

◯ Delphi

◯ Elixir

◯ F#

◯ Go

◯ Groovy

◯ Haskell

◯ HTML / CSS

◯ Java

○ JavaScript

○ Julia

○ Kotlin

○ Lua

○ MATLAB

○ Octave

○ Objective-C

○ Perl

○ PHP

○ Python

○ R

○ Ruby

○ Rust

○ Scala

○ Shell scripting languages (bash / shell / powershell)

○ SQL (PL / SQL, T-SQL and other programming extensions of SQL)

○ Swift

○ TypeScript

○ Visual Basic

Do you plan to learn any programming languages in the next twelve months? If so, which ones? *

Please choose **only one** of the following:

○ No

○ Yes, the following

Which forms of learning would be of interest for you if you were to acquire new software development skills? *

Please choose **all** that apply:

[ ] No answer

[ ] Participating in a workshop

[ ] Working through reading material

[ ] Working through self-teach tutorials

[ ] Performing tasks and receiving expert feedback

[ ] Participating in a bootcamp

[ ] Other (please specify): [_____]

Consulting - Part 1

Which were the biggest challenges you faced in the last twelve months when working on software / coding projects? *

Only answer this question if the following conditions are met:
Answer was NOT 'I do not develop software' at question '6 [Q006]' (How do you rate your software development / code writing expertise?)

Please choose **all** that apply:

☐ None

☐ How to start a new software / coding project

☐ Technology selection, e.g. programming language, frameworks

☐ Requirements analysis, e.g. specifications, DE: Lastenheft

☐ Project management

☐ Development process, e.g. change management, code sharing

☐ Structuring and organising of code

☐ Code quality, e.g. cleanliness, maintainability of code

☐ Testing

☐ Automation, e.g. continuous integration, continuous deployment

☐ Legal issues, e.g. licensing

☐ Team resources in terms of time, personnel, etc.

☐ Physical resources in terms of computing space, testing VMs, etc.

☐ Lack of project members able to code

☐ Other (please specify): [   ]

Which tools or approaches did you use to solve these challenges when they occurred? *

Only answer this question if the following conditions are met:
Answer was NOT 'I do not develop software' at question '6 [Q006]' (How do you rate your software development / code writing expertise?) *and* Answer was 'How to start a new software / coding project' *or* 'Technology selection, e.g. programming language, frameworks' *or* 'Requirements analysis, e.g. specifications, DE: Lastenheft' *or* 'Project management' *or* 'Development process, e.g. change management, code sharing' *or* 'Structuring and organising of code' *or* 'Code quality, e.g. cleanliness, maintainability of code' *or* 'Testing' *or* 'Automation, e.g. continuous integration, continuous deployment' *or* 'Legal issues, e.g. licensing' *or* 'Team resources in terms of time, personnel, etc.' *or* 'Physical resources in terms of computing space, testing VMs, etc.' *or* 'Lack of project members able to code' at question '25 [Q025]' (Which were the biggest challenges you faced in the last twelve months when working on software / coding projects?)

Please choose **all** that apply:

- [ ] None
- [ ] Google or other search engine
- [ ] Literature research
- [ ] Asking colleagues
- [ ] Going to expert knowledge-bases to read answers there, e.g. StackOverflow, forums
- [ ] Going to expert knowledge-bases to ask a question there, e.g. StackOverflow, forums

- [ ] Working through a self-guided tutorial
- [ ] Attending interactive training sessions
- [ ] Organising workshops
- [ ] Attending conferences
- [ ] Using consulting services
- [ ] Other (please specify): _____

Consulting - Part 2

Why did you not use these tools or approaches to solve these challenges when they occurred? *

Only answer this question if the following conditions are met:
Answer was NOT 'I do not develop software' at question '6 [Q006]' (How do you rate your software development / code writing expertise?) *and* Answer was 'How to start a new software / coding project' *or* 'Technology selection, e.g. programming language, frameworks' *or* 'Requirements analysis, e.g. specifications, DE: Lastenheft' *or* 'Project management' *or* 'Development process, e.g. change management, code sharing' *or* 'Structuring and organising of code' *or* 'Code quality, e.g. cleanliness, maintainability of code' *or* 'Testing' *or* 'Automation, e.g. continuous integration, continuous deployment' *or* 'Team resources in terms of time, personnel, etc.' *or* 'Legal issues, e.g. licensing' *or* 'Physical resources in terms of computing space, testing VMs, etc.' *or* 'Lack of project members able to code' at question '25 [Q025]' (Which were the biggest challenges you faced in the last twelve months when working on software / coding projects?) *and* Answer was NOT 'Asking colleagues' *or* 'Literature research' *or* 'Attending interactive training sessions' *or* 'Organising workshops' *or* 'Attending conferences' *or* 'Using consulting services' *or* 'Working through a self-guided tutorial' *or* ' Going to expert knowledge-bases to ask a question there,
e.g. StackOverflow, forums' *or* 'Going to expert knowledge-bases to read answers there, e.g. StackOverflow, forums' *or* 'Google or other search engine' at question '26 [Q026]' (Which tools or approaches did you use to solve these challenges when they occurred?)

Please choose the appropriate response for each item:

	This option was not available to me	I was not aware of this as an option	I did not feel comfortable using this option	This option is not my preferred medium	I did not have the time to pursue this option
Google or other search engine	○	○	○	○	○
Literature research	○	○	○	○	○
Asking colleagues	○	○	○	○	○

	This option was not available to me	I was not aware of this as an option	I did not feel comfortable using this option	This option is not my preferred medium	I did not have the time to pursue this option
Going to expert knowledge-bases to read answers there, e.g. StackOverflow, forums	○	○	○	○	○
Going to expert knowledge-bases to ask a question there, e.g. StackOverflow, forums	○	○	○	○	○
Working through a self-guided tutorial	○	○	○	○	○
Attending interactive training sessions	○	○	○	○	○
Organising workshops	○	○	○	○	○
Attending conferences	○	○	○	○	○
Using consulting services	○	○	○	○	○

How useful were these tools or approaches with respect to solving these challenges? *

Only answer this question if the following conditions are met:
Answer was NOT 'I do not develop software' at question '6 [Q006]' (How do you rate your software development / code writing expertise?) *and* Answer was 'Testing' *or* 'Structuring and organising of code' *or* 'Lack of project members able to code' *or* 'Physical resources in terms of computing space, testing VMs, etc.' *or* 'Team resources in terms of time, personnel, etc.' *or* 'Legal issues, e.g. licensing' *or* 'Automation, e.g. continuous integration, continuous deployment' *or* 'Code quality, e.g. cleanliness, maintainability of code' *or* 'How to start a new software / coding project' *or* 'Technology selection, e.g. programming language, frameworks' *or* 'Requirements analysis, e.g. specifications, DE: Lastenheft' *or* 'Project management' *or* 'Development process, e.g. change management, code sharing' at question '25 [Q025]' (Which were the biggest challenges you faced in the last twelve months when working on software / coding projects?) *and* Answer was 'Literature research' *or* 'Going to expert knowledge-bases to read answers there, e.g. StackOverflow, forums' *or* ' Going to expert knowledge-bases to ask a question there, e.g. StackOverflow, forums' *or* 'Attending interactive training sessions' *or* 'Working through a self-guided tutorial' *or* 'Attending conferences' *or* 'Using consulting services' *or* 'Organising workshops' *or* 'Google or other search engine' *or* 'Asking colleagues' at question '26 [Q026]' (Which tools or approaches did you use to solve these challenges when they occurred?)

Please choose the appropriate response for each item:
Only answer this question for the items you selected in question Q026 ('Which tools or approaches did you use to solve these challenges when they occurred?')
Only answer this question for the items you did not select in question Q026 ('Which tools or approaches did you use to solve these challenges when they occurred?')

	Not at all useful 0	1	2	3	4	Entirely useful 5
Google or other search engine	○	○	○	○	○	○
Literature research	○	○	○	○	○	○
Asking colleagues	○	○	○	○	○	○

	Not at all useful 0	1	2	3	4	Entirely useful 5
Going to expert knowledge-bases to read answers there, e.g. StackOverflow, forums	◯	◯	◯	◯	◯	◯
Going to expert knowledge-bases to ask a question there, e.g. StackOverflow, forums	◯	◯	◯	◯	◯	◯
Working through a self-guided tutorial	◯	◯	◯	◯	◯	◯
Attending interactive training sessions	◯	◯	◯	◯	◯	◯
Organising workshops	◯	◯	◯	◯	◯	◯
Attending conferences	◯	◯	◯	◯	◯	◯
Using consulting services	◯	◯	◯	◯	◯	◯

How useful would you find the following forms of consultation if you were to use consultation to solve a challenge in your software / coding project?

Only answer this question if the following conditions are met:
Answer was NOT 'I do not develop software' at question '6 [Q006]' (How do you rate your software development / code writing expertise?)

Please choose the appropriate response for each item:

	Not at all useful 0	1	2	3	4	Entirely useful 5
Being provided with reading material	○	○	○	○	○	○
Being provided with self-teach tutorials	○	○	○	○	○	○
Receiving workshops	○	○	○	○	○	○
Discussing the challenge with an expert	○	○	○	○	○	○
Analysis of the whole project by an expert	○	○	○	○	○	○
Receiving hands-on coding support	○	○	○	○	○	○

Community

Did you attend any networking or knowledge exchange events with focus on software development / code writing at your Helmholtz centre or online within the last twelve months?

Only answer this question if the following conditions are met:
Answer was NOT 'I do not develop software' at question '6 [Q006]' (How do you rate your software development / code writing expertise?)

Please choose all that apply and provide a comment:

☐ No, I am not interested because	
☐ No, I do not know any that focus specifically on	
☐ No, but I have heard of the following events	
☐ Yes, I attended the following the following events	
☐ Yes, I organised the following events	

How satisfied were you with the non-technical aspects of these events? *

Only answer this question if the following conditions are met:
-------- Scenario 1 --------
Answer was NOT 'I do not develop software' at question '6 [Q006]' (How do you rate your software development / code writing expertise?) *and* Answer was at question '30 [Q030]' (Did you attend any networking or knowledge exchange events with focus on software development / code writing at your Helmholtz centre or online within the last twelve months?)
-------- or Scenario 2 --------
Answer was NOT 'I do not develop software' at question '6 [Q006]' (How do you rate your software development / code writing expertise?) *and* Answer was at question '30 [Q030]' (Did you attend any networking or knowledge exchange events with focus on software development / code writing at your Helmholtz centre or online within the last twelve months?)

Please choose the appropriate response for each item:

	Not at all satisfied 0	1	2	3	4	Entirely satisfied 5	No answer
Virtual events	◯	◯	◯	◯	◯	◯	◯
Physical events	◯	◯	◯	◯	◯	◯	◯

Which event size would you be interested in? *

Only answer this question if the following conditions are met:
Answer was NOT 'I do not develop software' at question '6 [Q006]' (How do you rate your software development / code writing expertise?) *and* Answer was NOT at question '30 [Q030]' (Did you attend any networking or knowledge exchange events with focus on software development / code writing at your Helmholtz centre or online within the last twelve months?)

Please choose **all** that apply:

- [ ] 3-8 participants
- [ ] 9-20 participants
- [ ] 21-75 participants
- [ ] 76-200 participants
- [ ] 201-20.000 participants
- [ ] More than 20.000 participants

How would you like to be involved in future events? *

Only answer this question if the following conditions are met:
Answer was NOT 'I do not develop software' at question '6 [Q006]' (How do you rate your software development / code writing expertise?) *and* Answer was NOT at question '30 [Q030]' (Did you attend any networking or knowledge exchange events with focus on software development / code writing at your Helmholtz centre or online within the last twelve months?)

Please choose **all** that apply:

- [ ] Attending talks
- [ ] Attending panel discussions
- [ ] Proposing or choosing a topic
- [ ] Participating in group discussions
- [ ] Participating in one-on-one sessions, e.g. poster sessions, speed-dating
- [ ] Giving a talk or presentation
- [ ] Moderating an event
- [ ] Planning an event
- [ ] Other (please specify):

Please name software development / code writing related topics that you would like to focus on.

Only answer this question if the following conditions are met:
Answer was NOT 'I do not develop software' at question '6 [Q006]' (How do you rate your software development / code writing expertise?)

Note: Fill in any number of fields.

HIFIS services

Did you use any of the services provided by HIFIS in the last twelve months? *

Please choose **only one** of the following:

◯ No

◯ Yes

◯ Not sure

Would you use the following services if they were only available in English? *

Please choose the appropriate response for each item:

	No	Yes	Not sure
Consultations	○	○	○
Manuals, documentation or guidelines	○	○	○
Workshops	○	○	○
Videos or podcasts	○	○	○
Networking or knowledge exchange events	○	○	○

The HIFIS services are being developed continuously. Would you like to be informed about new services?

Please choose **all** that apply:

☐ No, never notify me via any channels

☐ Yes, mailing list or newsletter

☐ Yes, RSS feed

☐

Yes, HIFIS homepage (www.hifis.net (https://www.hifis.net/))

☐ Yes, Twitter

☐ Yes, poster or flyer

☐ Other (please specify): [_____]

Note: We will not use this information to contact you or anyone else without explicit consent.

Software context

Finally, we would like to learn a few more details about the software you develop / code you write.

Please choose **one** typical software project you are currently working on or have worked on as a Helmholtz employee and answer the following questions with respect to this particular project.

Who participates in the development of the software / writing the code? *

Only answer this question if the following conditions are met:
Answer was NOT 'I do not develop software' at question '6 [Q006]' (How do you rate your software development / code writing expertise?)

Please choose **only one** of the following:

( ) One developer

( ) One developer and contributors

( ) Development team

( ) Development team and contributors

Make a comment on your choice here:

Please also incidate the number of persons working in the development team (including you).

Which is the size of the software / code? *

Only answer this question if the following conditions are met:
Answer was NOT 'I do not develop software' at question '6 [Q006]' (How do you rate your software development / code writing expertise?)

Please choose **only one** of the following:

◯ Small

◯ Small - medium

◯ Medium

◯ Medium - large

◯ Large

Note: Rough estimate including lines of code, complexity and other aspects

Who uses the software / code? *

Only answer this question if the following conditions are met:
Answer was NOT 'I do not develop software' at question '6 [Q006]' (How do you rate your software development / code writing expertise?)

Please choose **all** that apply:

☐ Myself

☐ Individual persons upon request

☐ My research group

☐ Different reseach groups within my Helmholtz centre

☐ Other persons or groups outside my Helmholtz centre

How long is the software / code used by you or others? *

Only answer this question if the following conditions are met:
Answer was NOT 'I do not develop software' at question '6 [Q006]' (How do you rate your software development / code writing expertise?)

Please choose **only one** of the following:

◯ Up to one year

◯ More than one year up to three years

◯ More than three years up to six years

◯ More than six years up to ten years

◯ More than ten years

◯ Not sure

What is the potential impact of a malfunction of the software / code?

*

Only answer this question if the following conditions are met:
Answer was NOT 'I do not develop software' at question '6 [Q006]' (How do you rate your software development / code writing expertise?)

Please choose **only one** of the following:

◯ It is not mission-critical software / code

◯ Negligible consequences which could lead to a minor mission degradation with no risks for life and environment

◯ Major consequences which could lead to a major mission degradation with no risks for life and environment

◯ Critical consequences which could lead to a loss of mission including temporarily disabling but not life-threatening injuries or major detrimental environmental effects

◯ Catastrophic consequences which could lead to a loss of mission including loss of life or severe detrimental environmental effects

Which type of software / code is it? *

Only answer this question if the following conditions are met:
Answer was NOT 'I do not develop software' at question '6 [Q006]' (How do you rate your software development / code writing expertise?)

Please choose **all** that apply:

☐ Utility software / code

☐ Machine learning application

☐ Web application

☐ Embedded system

☐ Flight control software / code

☐ Data analysis scripts

☐ Library / framework

☐ Simulation application

☐ System software / code

☐ Modeling application

☐ HPC application

☐ Other (please specifiy): _____

For which target platforms is the software developed? *

Only answer this question if the following conditions are met:
Answer was NOT 'I do not develop software' at question '6 [Q006]' (How do you rate your software development / code writing expertise?)

Please choose **all** that apply:

- [ ] Desktop
- [ ] Server
- [ ] HPC system
- [ ] Cloud system
- [ ] Mobile
- [ ] Embedded system
- [ ] Browser

- [ ] Other (please specify): _____

Comment

Is there anything else you would like to tell us?

Please write your answer here:

Thanks for your feedback!

We very much appreciate you taking the time to complete this survey and contributing to the development of a Helmholtz-wide information environment.

We hope that the cloud and software services provided by HIFIS will support you and your future endeavours in the best possible way.

The survey will run until end of June and data then be analysed anonymously.

An overview of the results will be published on our website (https://www.hifis.net/news).

If you experienced any difficulties or have any questions, please get in touch via support@hifis.net (mailto:support@hifis.net?subject=HIFIS%20Survey%202021)

Submit your survey.

Thank you for completing this survey.