



NEDERLANDSE FEDERATIE VAN
UNIVERSITAIR MEDISCHE CENTRA

Research Groups

Research personas and their IT needs

April 2019

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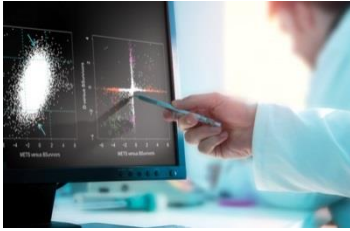

Amsterdam UMC (location AMC)

Use of research group descriptions

- Gives insight in usefulness of an application and/or infrastructure component per research group
- Gives insight in whether a new application and/or infrastructure component is of interest for one specific research group or has a generic purpose
- Gives management the opportunity to prioritize new IT initiatives



Researchers and their IT requirements

Researchers working with patients	Researcher with standard facilities, clinical & non-clinical	Researcher with extra flexibility needs clinical & non clinical	IT advanced researcher non-clinical	Personas
<p>Researcher in healthcare (doctor/clinical researcher, etc.)</p> 	<p>Laboratory researcher, epidemiologist, biobank employee, PhD student</p> 	<p>Epidemiologist, biostatistician</p> 	<p>Bioinformatician, data scientists</p> 	Roles
<i>Trials, medical case study</i>	<i>Laboratory research, cohort study</i>	<i>Data research</i>	<i>Advanced data analysis</i>	Key process
<i>EHR data, surveys, measurements, images</i>	<i>Lab data, external registrations, social demographic data, EHR data, statistical analyses</i>	<i>Lab data, external registrations, social demographic data, statistical analyses</i>	<i>Lab data, genetic data, experiment data, graph data, images</i>	Key data and information
<i>EPIC, SPSS, OpenClinica/Castor</i>	<i>SPSS/R, Adobe CC, LimeSurvey, OpenClinica/Castor</i>	<i>R, Adobe CC, LimeSurvey, OpenClinica/Castor, experimental software</i>	<i>Phyton, R, own executables</i>	Key applications
<i>Standard workstation, fast wifi for own device</i>	<i>Standard workstation, fast network, data catalog</i>	<i>Workstation with software installation option, fast network, data catalog</i>	<i>Management of own workstation and servers (IaaS), fast network</i>	Key components infrastructure

Storage + Compute + Flexibility

Rely on IT support



Generic requirement researchers

For all researchers:

To work location-independent (from home, for example) is a requirement



Researcher working with patients



Doctor-Researcher

- Works primarily in healthcare, but also conducts research
- Works directly with patients and makes diagnoses
- Often directs research and researchers
- Needs insight in progress and data of researchers working for him/her

Other roles (e.g. research nurse)

- Often uses a self-purchased laptop for presentations, e-mail, taking notes, collaborating (including videoconferencing) with colleagues from external organizations
- Wifi network must be sufficiently fast and allows for connection of personal device
- Centrally managed closed workspace fulfills most of the work



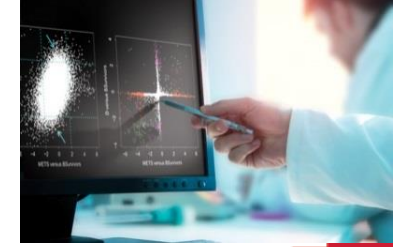
Researcher with standard facilities



- Full time researcher
- Performs clinical and/or non-clinical research
- Does not have a care/treatment relationship
- Works mainly with lab data possibly supplemented with other data (EHR, external registries, social demographic data etc.)
- Part of this group works with cohort studies; collaboration with third parties is important
- Only uses a centrally managed closed workspace and standard research applications (like SPSS, Castor, Matlab) that are offered within this workspace
- Cooperation with external parties can sufficiently be achieved with existing IT facilities offered by the home institute (e.g. UMC) and external service providers (Outlook, Skype, SharePoint, SURFdrive etc.)



Researcher with extra flexibility needs



- Full time researcher
- Performs clinical and/or non-clinical research
- Does not have a care/treatment relationship
- Works mainly with lab data possibly supplemented with other data (EHR, external registries, social demographic data etc.)
- Can work for the main part of activities with a centrally managed closed workspace and the standard research applications
- Requires an extra work environment with IT facilities to be able to do experiments, e.g. for software obtained from a colleague researcher at another institute to try out in their own institute (e.g. UMC). It concerns an ad hoc need for self-install software in an environment where this is possible
- Collaborating and sharing data with fellow researchers from other institutes is important
- File storage amount is quite large



IT advanced researcher



- Full time researcher
- Does not have a care/treatment relationship
- Looks for the edges of the possibilities with IT and puts up the highest demands for hardware and software
- Needs fast data connections with other research institutes (other UMC, SURF, universities, etc.)
- Can and wants to set up a platform (IaaS) with (virtual) PCs and servers with which heavy calculation tasks are performed for analyses
- Amount of data that are generated is considerable (terabytes)

Research group distribution per category

The distribution per UMC of research groups (*)

Doctor/clinical researcher: 10%

Researcher with standard facilities
clinical & non-clinical: 40%

Researcher with extra flexibility needs
clinical & non-clinical: 40%

IT advanced researcher non-clinical: 10%

(*) preliminary estimate

