



Eesti Teadusagentuur
Estonian Research Council



Marie Skłodowska-Curie individuaalgrandid

Tartu, 12. mai 2015

Kristin Kraav

Disclaimer ja hoiatus:

- Hea taotluse koopia on halb taotlus!
- Seepärast:
 - Ei jagata „hea taotluse“ täida-lüngad poolfabrikaate
 - Näited on ainult inspiratsiooniks

MSC IF rahastamine

Rahastus põhineb kehtestatud ühikuhindadel

- Ühikuhinnad kuu kohta:
 - **Teadlase ühikuhinnad** (*isiklikuks kasutamiseks! Üldjuhul makstakse kõik kolm koos kuupalgana ja maha lähevad kõik maksud*)
 - Palgafond: **4650 €** x sihtriigi korrektsioonikoefitsient
 - Mobiilsustoetus **600 €**
 - Peretoetus **500 €**
 - **Asutuse ühikuhinnad**
 - Teadustöö ja koolituse kulud **800 €** (*sh tööreisid*)
 - Projekti juhtimine ja üldkululõiv **650 €**
- Kaasfinantseerimist ei nõuta (*de facto* kaasfinantseerimine on teatud valdkondades võibolla siiski vajalik)

Marie Skłodowska-Curie individuaalgrandid

teadus + koolitus = mõju karjäärile

Milline on hea taotlus?

- selline, kus kokku saavad
 - hea teadus
 - paljutöötav teadlane
 - läbimõeldud ja selge karjääriplaan

MSC IF eesmärk

Objective:

The goal of Individual Fellowships is to **enhance the creative and innovative potential** of experienced researchers wishing to **diversify** their individual competence in terms of **skill acquisition** through advanced training, international and intersectoral mobility.

Individual Fellowships provide opportunities to acquire and transfer new knowledge and to work on research in a European context (EU Member States and Associated Countries) or outside Europe. The scheme particularly supports the return and reintegration of researchers from outside Europe who have previously worked here. It also develops or helps to restart the careers of individual researchers that show great potential, considering their experience.

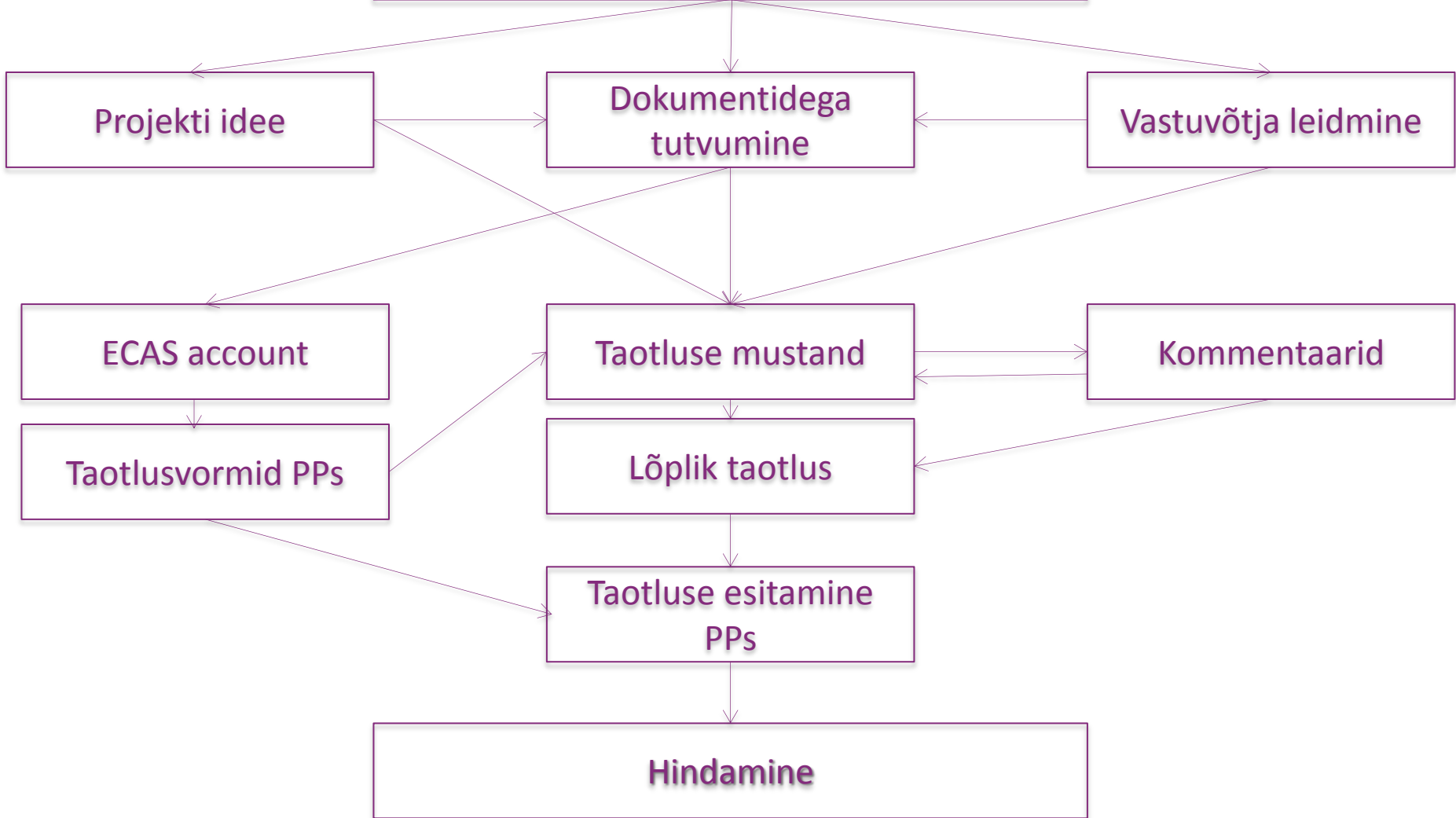
MSC IF oodatav mõju

Expected impact:

- Individual Fellowships are expected to **add significantly to the development of the best and most promising researchers** active in Europe, in order to enhance and maximise their contribution to the knowledge-based economy and society.
- The action will also **strengthen the contact network** of both the researcher and the host organisation.
- The fellowship will contribute to realising the full potential of researchers and to **catalysing significant development in their careers** in both the academic and non-academic sectors.
- Some researchers will be resuming a research career in Europe after a break, or reintegrating within Europe after living abroad.



Marie S. Curie individuaalgrandi taotlemise protsess



Taotlemine käib Participant Portal kaudu:

- <http://ec.europa.eu/research/participants/portal>
- Konkursi leht:
<https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-msca-if-2015.html>
- Taotluste esitamise keskkonda jõudmiseks tuleb esmalt valida
 - EF (European Fellowship)
<https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/10057-msca-if-2015-ef.html>
 - GF (Global Fellowship)
<https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/10058-msca-if-2015-gf.html>

Taotluse struktuur

A vormid

1. Üldinfo, sh lühikokkuvõte
2. Osalejad ja kontaktid (juhendaja, teadlane)
3. Eelarve
4. Eetika
5. Konkursi-spetsiifilised küsimused:
 - ajateenistus
 - luba edu korral andmeid avaldada
 - lähetused

B osa

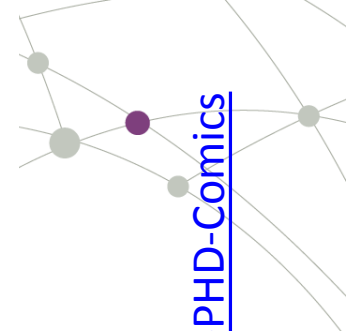
1. Excellence
2. Impact
3. Implementation
4. CV
5. Capacities of org.
6. Ethical aspects
7. Letters of commitment (*ainult GF*)

Abstract MadLibs!!

This paper presents a _____ method for _____
(synonym for *new*) (sciencey verb)
the _____. Using _____, the
(noun few people have heard of) (something you didn't invent)
_____ was measured to be _____ +/- _____
(property) (number) (number)
_____. Results show _____ agreement with
(units) (sexy adjective)
theoretical predictions and significant improvement over
previous efforts by _____, et al. The work presented
(Loser)
here has profound implications for future studies of
_____ and may one day help solve the problem of
(buzzword)

(supreme sociological concern)

Keywords: _____ / _____ / _____
(buzzword) (buzzword) (buzzword)



Organisatsioonid taotluses

- **Beneficiary** = organisatsioon, millega sõlmitakse leping = vastuvõttev org. Euroopas
- **Partner organisation** = GF: vastuvõttev organisatsioon väljaspool Euroopat; EF: ajutise lähetuse organisatsioon
- Taotlus kirjutatakse koostöös vastuvõtva(te) organisatsiooni(de)ga. NB! taotluse esitab organisatsioon

1. Excellence

1. Quality, innovative aspects and credibility of research
2. Clarity and quality of transfer of knowledge/training
3. Quality of supervision & hosting
4. Capacity of the researcher to reach a position of professional maturity

2. Impact

1. Enhancing ... to provide career perspectives
2. Communication and dissemination

3. Implementation

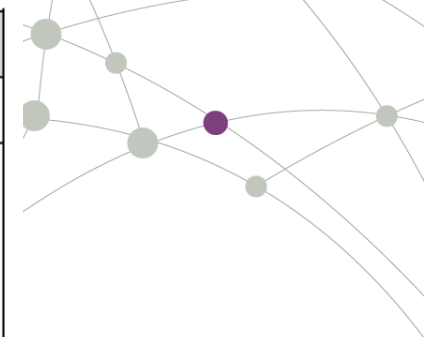
1. Coherence and effectiveness of the work plan
2. Management structure
3. Institutional environment
4. Competences ... and commitment ...

4. CV of the researcher

5. Capacity of the organisation

6. Ethics

IF - Marie Skłodowska-Curie Individual Fellowships		
Excellence	Impact	Implementation
Quality, innovative aspects and credibility of the research (including inter/multidisciplinary aspects)	Enhancing research- and innovation-related human resources, skills, and working conditions to realise the potential of individuals and to provide new career perspectives	Overall coherence and effectiveness of the work plan, including appropriateness of the allocation of tasks and resources
Clarity and quality of transfer of knowledge/training for the development of researcher in light of the research objectives	Effectiveness of the proposed measures for communication and results dissemination	Appropriateness of the management structures and procedures, including quality management and risk management
Quality of the supervision and the hosting arrangements		Appropriateness of the institutional environment (infrastructure)
Capacity of the researcher to reach or re-enforce a position of professional maturity in research		Competences, experience and complementarity of the participating organisations and institutional commitment
50%	30%	20%
Weighting		
1	2	3
Priority in case of <i>ex aequo</i>		
NB: An overall threshold of 70% will be applied to the total weighted score.		





Eesmärgid



Metoodika



**Vajalikud
oskused**



Mõju

Koolituse element:

- *Training through research*
- *Training for developing scientific skills*
- *Training for developing transferable skills*
- *Inter-sectoral experience*
- *Taking part of project management*
- *Organisation of events*
- *Communication, public engagement*
- *Training on gender issues*

Ülesanne: grupitöö

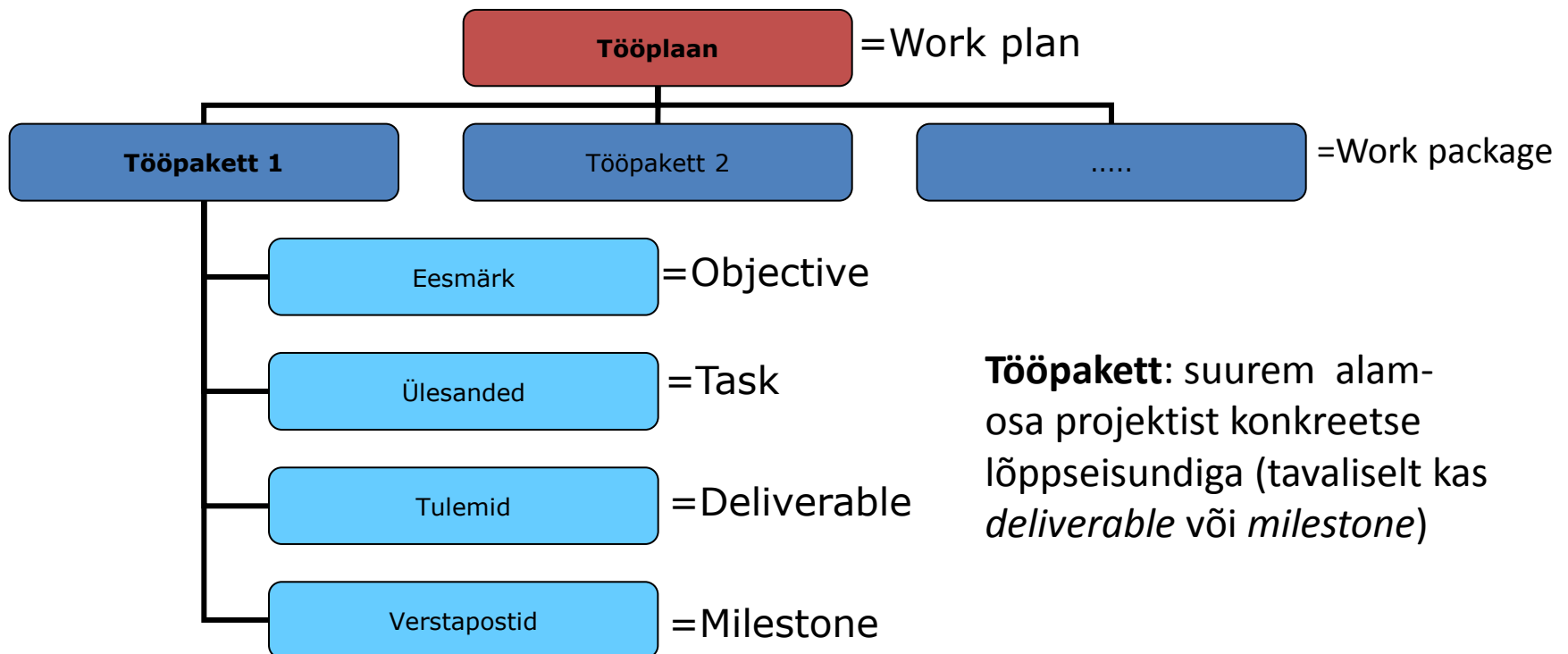
- Kui sinu karjäär läheb suurepäraselt, siis millisel positsioonil sa oled 5-6 a pärast?
- Milliseid oskusi on sellel positsioonil vaja?

Capacity to reach a position of maturity → Impact

- Millised sinu senised saavutused on näidanud sinu võimet jõuda teaduses iseseisva või liidripositsioonini?
- Siit osast sujuv üleminek järgmise hindamiskriteeriumi juurde, kuidas praegune projekt karjääri arenguks võimalusi annab
- Näited

Tööplan

kirjeldab konkreetseid samme eesmärkide saavutamiseks, sh projekti juhtimiseks tehtavaid, ning meetodeid progressi hindamiseks



Näide: Gantt

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
WP1 - Elaboration of theoretical framework																								
Materials collected		MS1																						
Analysis completed			MS2																					
Article finalised					D1																			
WP2 - Collecting and analysing empirical data																								
Questionnaire composed				MS3																				
Data collected											MS4													
Analysis completed															MS5									
Article finalised															D2.1									
WP3 - Binding empirical data with theoretical materials and the case law																								
Proposal completed																								MS6
Report completed																								D3.2
WP4 - Dissemination and communication																								
Conference activities															D2.2									D3.1
Notifying relevant institutions about planned activities; sending them results of the research																								
Introducing the project in the Netherlands																								
Introducing the project in Estonia																								
Administration of the webpage																								
WP5 - Key meetings with the supervisor for progress monitoring and risk management																								

MS = Milestone; D = Deliverable

CV

- Kasuta võimalust oma (teadus)saavutusi detailsemalt avada
- Too välja tulemused / oskused / saavutused, mis näitavad
 - sobivust plaanitava projektiga
 - iseseisvust ja juhiomadusi

Üldised nõuanded:

- Hindaja on ka inimene!
 - taotlus olgu loetav ja selge
 - hoolitse, et hindaja leiaks vajalikud asjad kergesti üles

A nice layout

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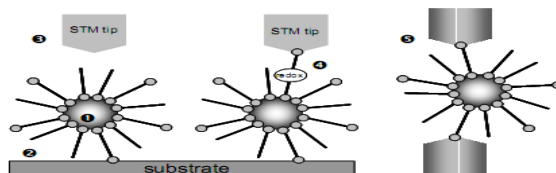
The Marie Curie Actions

FP7-PEOPLE-2007-2-1-IEF

Research methodology

In order to reach the overarching project objective, an ambitious interdisciplinary approach of state-of-the-art experimental and theoretical efforts is required. The comprehensive understanding and integration of nanocrystal-mediated electron tunnelling will represent a significant advance in the fast-developing field of molecular electronics.

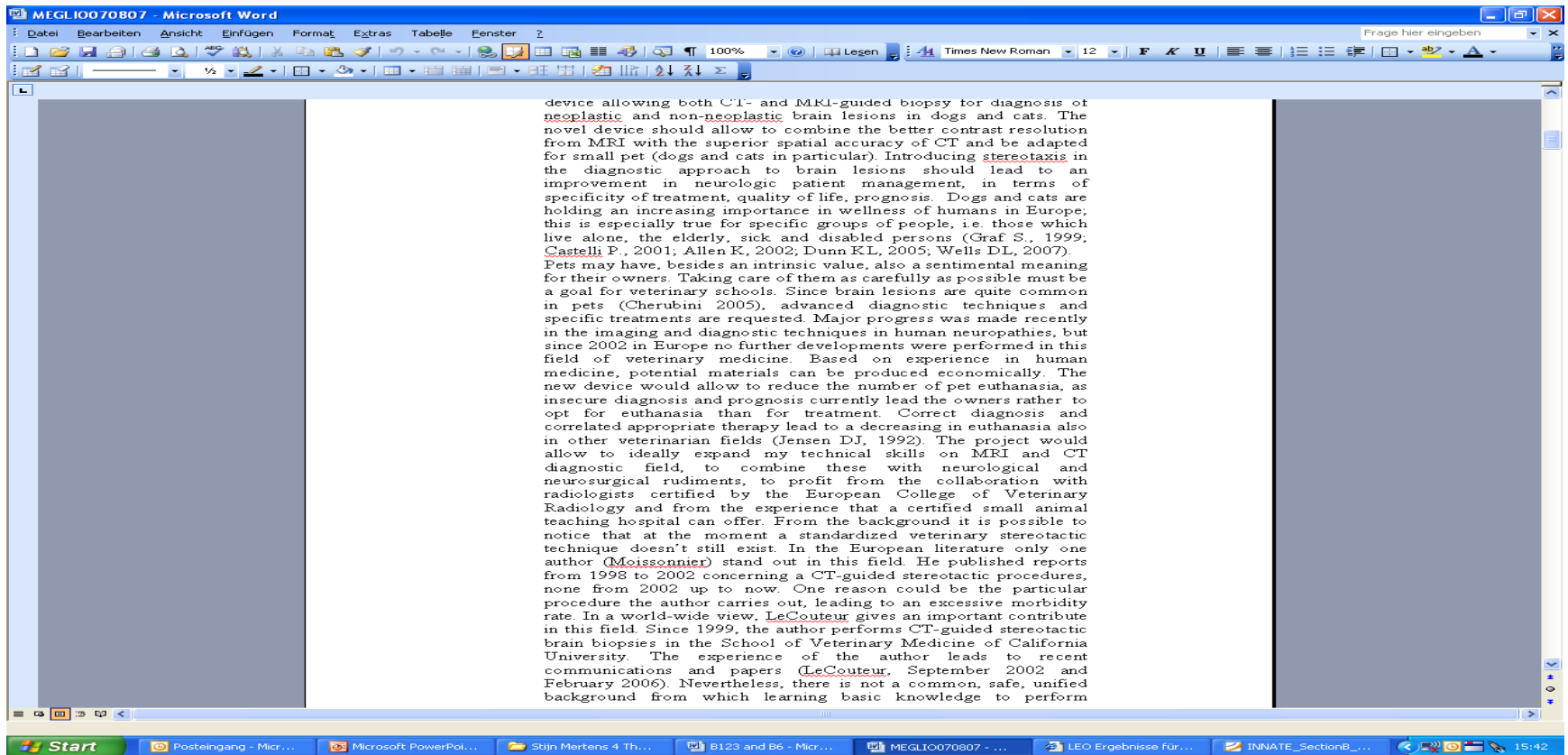
A clear **sequence of steps**, each novel, challenging and essential to the overarching objective, can be identified; numbers ❶ to ❸ refer to the accompanying scheme.



❶ **To synthesise nanocrystals that display active molecular electronic function.** Only in the past few years, nanocrystals with variable size, ligand shell and sufficient monodispersity to allow systematic study have become synthetically accessible. For our project, nanocrystals in the quantum-confinement size range, of various base metals and with variable ligand shells and anchoring groups will be synthesised. Metal cores will initially consist of gold for reasons of chemical stability. At a later stage, this will be extended to Ag and Pd to study the effect of metallic electronic structure on the STS behaviour of the nanoassembly. To cover the accessible cluster size range where quantum confinement effects can be expected, particle diameters will extend from 0.8 to >2 nm (targets: Au₁₁, Au₂₃, Au₇₅, Au₁₄₇, Au₂₂₃). Hybrid systems consisting of a cluster and a redoxactive ligand (*i.e.*, thiolated viologen and ferrocene), to be studied in phase ❷, will be synthesised relying on place-exchange reactions. Samples of suitable starting systems are already available, and consist of nanoparticles with a highly monodisperse Au₁₄₇ core and a ligand shell of either *n*-hexanethiolate (C6S) or a mixed monolayer *n*-hexanethiolate/4-mercaptopyridine (4MP). The latter system was used in the proof-of-principle experiment in Lyngby²⁷ and will allow reproducibility tests in the Bern lab. We believe the applicant's previous experience in one of the world's pioneering labs in this field (Prof. David Schiffrin, Liverpool/UK) warrants the ideal background.

❷ **To refine techniques for nanocrystal immobilisation on ultraclean substrates.** Addressing single-nanocrystal electronic function requires near-perfect control over spatial and structural organisation. Single-crystal noble metal surfaces such as Au(111) and Pt(111) are atomically planar and characterised to atomic resolution, and will be the substrates of choice. The host group has extensive expertise in this field. A particular advantage of Au and Pt as substrates is that (nearly) symmetric tunnel junctions can be created through the use of an STM tip of the same material. Limitation of the number density of molecules on the surface is likely necessary and could involve matrix isolation/dilution or be based on intermolecular interactions (*e.g.*, electrostatic repulsion between anion-terminated nanocrystal ligand shells). The collective electrochemical behaviour (in

A not so nice layout



Open Access ja Open Data

- Avatud ligipääs publikatsioonidele on H2020 üldnõue. Loe täpsemalt:
 - https://ec.europa.eu/programmes/horizon2020/sites/horizon2020/files/FactSheet_Open_Access.pdf
 - http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-pilot-guide_en.pdf
- Avaandmed on pilootprojekt:
 - http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf
- Open Access & Open Data Webinar:
 - <http://www.youtube.com/watch?v=qecvxvJFgZA>

Kokkuvõtteks

- Iga sõna juhendis ja hindamiskriteeriumides = lause või lõik taotluses
- Mida pole taotluses, seda pole olemas
- Hindajad ei tunne ei Eesti ega sihtriigi teadussüsteemi ega tavasid
- Tihe koostöö vastuvõtjaga on edu alus