

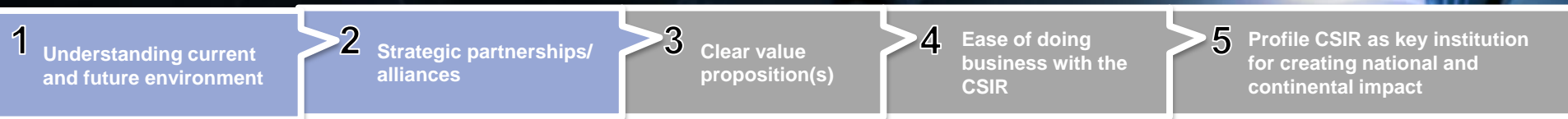
Update on CSIR Strategic Partnerships



CSIR Strategic Partnerships Forum

31 July 2013

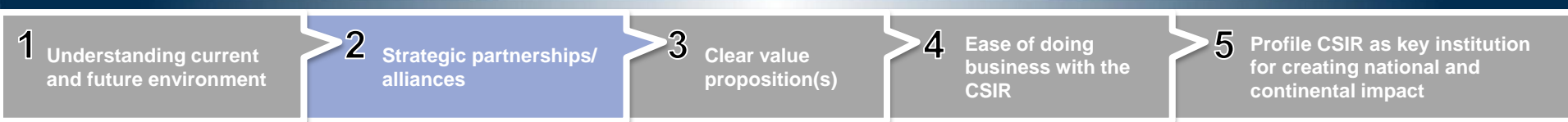
Definition of a CSIR Strategic Partnership



- We share a long term shared vision
- We participate in each other's strategy formulation process
- We are planned into each other's strategy
- We have joint R&D initiatives linking strategic objectives to a portfolio of R&D projects
- Shared investment, infrastructure, human capital development, IP etc.
 - Some of which we do together
 - Some of which involve other partners (e.g. HEIs, NGOs, CBOs)
 - Some of which CSIR does based on technical expertise



Roles - CSIR Key Account Managers



1. Approach

- Understand the Strategic Partner/CSIR MoA
- Take a strategic perspective
- Take an institutional perspective

2. Operational

- Establish communication link with counterpart
- Develop shared understanding of the intent of the cooperation area
- Develop concepts for joint initiatives
- Respond to enquiries from colleagues
- Advise, guide and filter

3. Test project concepts

- Firstly with institutional representative
- Own institutional entity
- Steering Committee

4. Develop and submit project proposals

- Meet own institutional process requirements
- Align with guidelines and criteria provided

Update on CSIR Strategic Partnerships



State Owned Enterprises

Eskom/CSIR Strategic Partnership

Barry MacColl/Berenice Lue



1. Overview of collaborative R&D programme

- Demand Side Management & Energy Efficiency/ Renewable Supply Options
- Energy Storage
- Integrated Resource Scenarios
- Climate Change
- Smart Grids
- Water
- Refurbishment

2. Progress to date

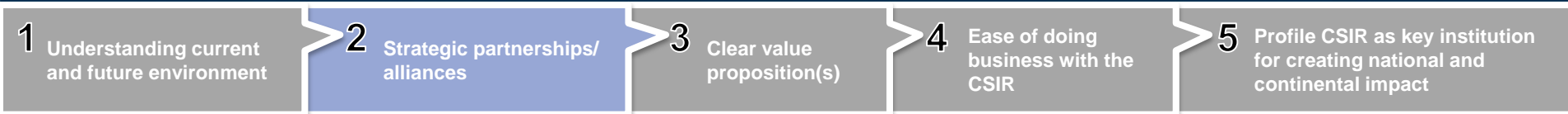
- Eskom R20m Task Order approved
- Contracts secured for NLC, NRE, DPSS
- 2nd call for proposals 19 July

3. Issues for attention

- Clear articulation of CSIR Energy strategy and key focus areas required
- PG allocation at Unit level to complement Eskom funding
 - (Proposing) researcher alignment with Unit strategy and MoA intent

SITA/CSIR Strategic Partnership

Gerald O'Sullivan/Berenice Lue



1. Overview of Program of Work

- Network Monitoring, Simulation and Modelling, DPSS led
- Smart ID Cards, MDS led
- Dr Math, Meraka led
- Department-specific RDI road maps, Meraka/DPSS led

2. Issues for attention

- Complex relationship management due to organisation in transition but key enabler for CSIR to provide ICT services to Government
- CEO to CEO meeting required to re-commit to shared strategic intent

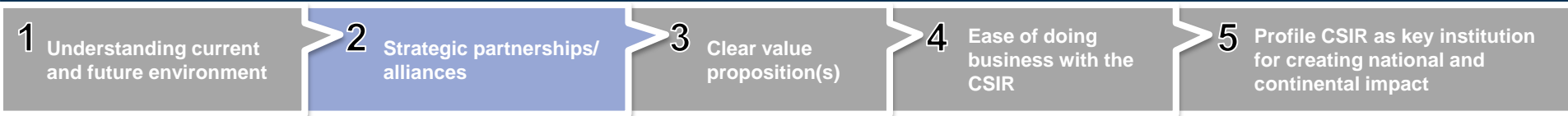
SAPS/CSIR Strategic Relationship

Lieutenant General Ngubane/Major General Pillay/Roger Young

- Status: MOA in final review, completion before end July.
- Strategic Intent: Establish a Safety and Security Evaluation and Research Institute (SSERI) for long term strategic and operational scientific decision support
- Delivers support in 6 programmes:
 - Command, Control & Shared Situational Awareness
 - ICT
 - Integration and Interoperability
 - Science and Technology Capability Development
 - Strategic and Operational Support
- Builds on / requires expansion of:
 - ICT capabilities
 - Cyber Security
 - Enterprise Engineering / Business Architecting / Governance Support
 - Sensors, GIS platforms, Data Fusion
 - Test & Evaluation Facilities
 - Knowledge / Technology transfer

Denel/CSIR Strategic Partnership

Jan Wessels/John Wesley



1. Overview of Program of Work

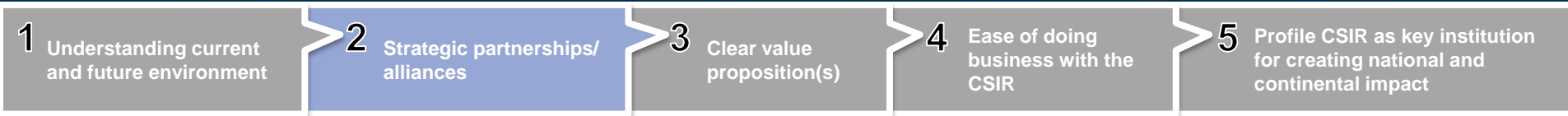
- Advanced manufacturing e.g., Laser technology, Titanium structures, Aerostructures (manned & unmanned), Gas Turbines
- Systems Engineering
- Testing and Evaluation
- Sensors (including Optronic and Radar)
- Modelling and Simulation
- Advanced computational methods
- Space Engineering
- Human Capital development
- Software Engineering
- Protected landward mobility and firepower
- Collaboration in international markets

2. Issues for attention

- No projects initiated thus far
- Official signing to take place on 20 August 2013

TNPA&TPT/CSIR Strategic Partnership

Rufus Lekala & Willie Coetsee/Petrus Matji



1. Overview of Program of Work

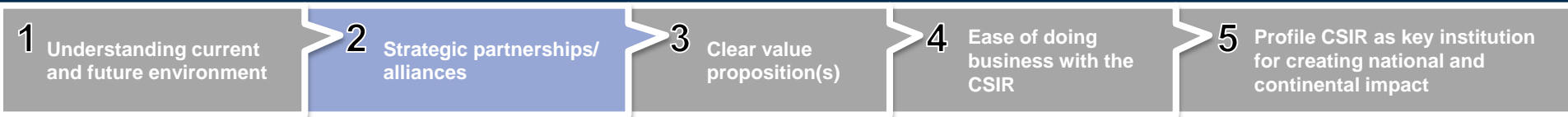
- Port infrastructure monitoring, maintenance and optimization
- Physical and numerical models of port layout, ship motion and breakwaters
- Information management systems for data archiving & port control, consolidation and cleansing of data to enhance modelling capabilities
- Long wave measurement and forecasting linked to moored ship motion analysis for safer berthing
- Marine environmental monitoring
- Impact of climate change on all ports
- Early warning systems
- Human capital development

2. Comments

- TPT to identify specific projects that will in line with high level program activities

TE/CSIR Strategic Partnership

Sugen Govender/Charl Harding



- Status

- 5 Project has been approved and submitted to Transnet Procurement
- 4 Projects is still in the scoping phase and will be submitted in the next 2 months
- The first lab in building 44 has been completed and occupied by 15 engineers
- The second lab in building 44 will be ready in August.
- Transnet has appointed a architect for the building 21 project and want to start construction before the end of the year.

- Strategic Interaction

- TE requested the CSIR to assist in the development of a Transnet Engineering R,D&I strategy. A two day workshop has been scheduled next week

- Capabilities Required

- The regenerative energy and power electronics expertise on campus are limited. Investment is needed to extend the capabilities (HCD and Labs) to support Transnet in the future.

- Issues

- Procuring the services of the CSIR within the PFMA is a challenge
- Sugen has indicated that only receiving building 21 in 2015 is a possible problem. Transnet wants to have a signing ceremony as soon as possible

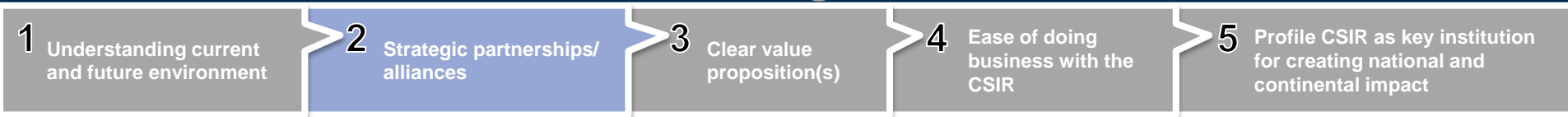
Update on CSIR Strategic Partnerships

- 1 Understanding current and future environment
- 2 Strategic partnerships/alliances
- 3 Clear value proposition(s)
- 4 Ease of doing business with the CSIR
- 5 Profile CSIR as key institution for creating national and continental impact

Public Sector

the dti/CSIR Strategic Partnership

Nonkululeko Shinga/Berenice Lue



1. Overview of Program of Work

- Establishment of the Titanium Industry (Value Chain approach)
- Establishment of the Platinum Industry
- Electronics Industry based on Defence Capacity
- Energy: Shale gas (Shell)
- Two key strategic projects - Water Infrastructure & Waste Management and Recycling

2. Issues for attention

- CSIR Champion to be identified for each Strategic Area
- PG allocation from Executive strategic fund required to scope each strategic area
- CSIR demonstrable delivery outputs and timelines required on (2) key strategic projects - Water Infrastructure & Waste Management

DWA/CSIR Strategic Partnership

Ramogale Sekwele/Harrison Pienaar

Status

The CSIR-DWA strategic partnership convened its second Steering Committee, confirming six identified areas of cooperation. Subsequently, value propositions and potential project initiatives has been identified for each cooperation area. Establishment of joint technical task teams have been confirmed, in order to further refine and unpack each value proposition and project initiative, for consideration at the next Steering Committee meeting.

COOPERATION AREAS:

1. Water policy, regulation and governance
(DWA: Marie Brisley/ CSIR: Marius Claassen)
2. Integrated planning and demand management
(DWA: Solly Mabuda/ CSIR: Paul Lochner)
3. Infrastructure
(DWA: Kurt Fortuin/ CSIR: Petrus Matji)
4. Monitoring, evaluation and compliance
(DWA: Carey Raja/ CSIR: Karen van Breukelen)
5. International water cooperation
(DWA: Thabisa Fiko/ CSIR: Harrison Pienaar)
6. Human capital development
(DWA: Verena Meyer/ CSIR: Pinda Sifunda)

STRATEGIC INITIATIVES:

1. Development and refinement of key regulatory tools (i.e. waste discharge charge system and water tariff setting).
2. Centre for integrated and sophisticated water planning modelling systems.
3. Strategic advocacy support in operations, maintenance, health & safety aspects of water infrastructure.
4. Provision of adequate systems to deal with both quality and quantity aspects of water management.
5. Joint cooperation and management on water aspects to promote regional and international water cooperation.
6. Provision of adequate & skilled capacity in water management.

Issues for attention

- ExCo formal request for presentation on CSIR Water Flagship to be made to DWA ExCo
- CSIR Relationship with DWA is dominated by projects with DWA Agencies and is still very project specific, not yet strategic – aim is to grow it to this level

DEA/CSIR Strategic Partnership

Mapula Tshangela/Xolisa Ngwadla

The CSIR-DEA strategic partnership has convened the Steering Committee, with cooperation areas having been identified. Technical working groups are currently developing concepts under each of the cooperation areas. Notable strategic initiatives are gleaned from the concepts under consideration. The 3rd Steering Committee meeting is expected to provide guidance on which initiatives should be prioritised.

COOPERATION AREAS:

1. Environmental solutions for a green economy - Douglas Trotter (NRE)
2. Adapting and mitigating climate change - Xolisa Ngwadla (NRE)
3. Sustainable environmental management - Paul Lochner (CAS)
4. Protecting biodiversity - Luthando Dziba (NRE)
5. Ecosystem Service delivery - Lee Annamalai (MI)

NOTABLE STRATEGIC INITIATIVES:

1. Development of guidelines, tools, indicators and metrics for assessing green economy initiatives
2. Open platform to support greenhouse gas mitigation decision making
3. Strategic Environmental Assessments on key questions, and supporting environmental reporting using earth observation platforms
4. Bioprospecting for potentially valuable medicinal and food species
5. Risk assessment and modelling; disaster management planning and fire detection building on the AFIS platform

SRSA/CSIR Strategic Partnership

Bernadus van der Spuy/Tony Kirkbride

The SRSA/CSIR/DST strategic partnership is currently crafting a Research, Development and Implementation Programme in support of the government's National Sport and Recreation Plan. A draft business plan and management model have been proposed for consideration (closely aligned to the framework contained in this presentation). Four themes, linked to five CSIR competency areas, have been identified and the three parties are presently identifying the funding priorities, investment strategies and timescales.

COMPETENCY AREAS:

1. Systems Development - To be advised
2. Immovable Asset Management - Ankoma Ampofo -Anti (CAS)
3. Sports Science and Technology - Tony Kirkbride (CAS)
4. Infrastructure - Ankoma Ampofo-Anti (CAS)*
5. Monitoring and Evaluation/Impact Assessment - To be advised

* Linked to competency area #1

NOTABLE STRATEGIC INITIATIVES:

1. *Talent Identification*: this is a complex process that aims to identify potential elite athletes in SA and implement structured performance pathways to pro-actively develop sporting talent
2. *Facilities*: this underpins sports development in South Africa by providing an enabling environment
3. *Club Development*: aims to provide a solid foundation for long-term participant development and mentorship programmes
4. *Research and Development Support*: targets critically important sports science and technology domains, such as telemetry and tracking, aerodynamics, materials, nutrition and ICT

DoH/CSIR Strategic Relationship

Melanie Wolmarans/Dusty Gardner

- **Status**: MOU between BE & DoH in place.
 - Needs expansion to cover all of CSIR as well as the spectrum of Health Initiatives. Draft has been prepared, requires expansion of scope for NHI, etc.
 - Proposal for initial NHI work (Population Register) in negotiation
- **Strategic Intent**: Build on the good work of BE (IUSS) & Meraka (Normative Standards Framework) to secure involvement across 4 of the NDOH programmes:
- **Opportunities**: (consolidated)
 - ICT infrastructure and systems, incl Standards based mHealth platform, Health Facility Connectivity Solutions
 - Health infrastructure, Standardised clinic design and construction, Infection control
 - Spatial planning, Immovable asset management
 - Enterprise architecture and systems engineering
 - Medical technologies (POC diagnosis), Nutrition, Environmental health
- **Required Capabilities**:
 - Medical technology development skills and facilities (regulatory certification knowledge)
 - Need to expand capabilities such as eHealth standards & systems

DPW/CSIR Strategic Partnership

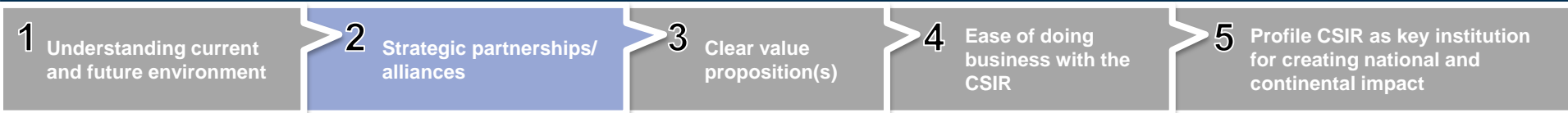
*/Sihle Dlungwana



1. Old NDW/CSIR Mou (2005) needs to be replaced - no longer appropriate
2. New MoU awaiting signatures
3. Main role-players are BE, CAS & NDPW (see MoU's addendum)
4. Overview of Program of Work entails CSIR expertise (among others) i.t.o.:
 - NDPW's Expanded Public Works Programme (EPWP) – R4m contract with BE currently underway;
 - Green Building Programme;
 - Energy and water efficiency in buildings;
 - Design and construction of low-volume roads;
 - Enhancement of and compliance with the Government Immovable Asset Management Act;
 - Emerging contractor development models
5. Issues for attention
 - Finalisation of the Mou
 - CSIR be appointed to assist with strategic projects identified in (4) above.

DRDLR/CSIR Strategic Partnership

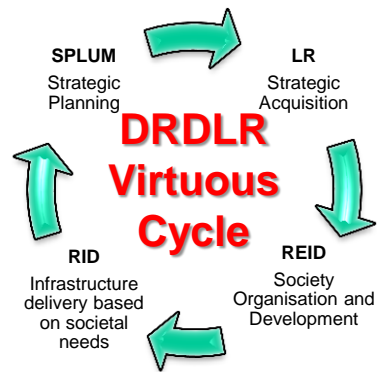
~/Rensie van Rensburg



Overview of Departmental Processes and Structures

Determine "Where" to implement:

- SIPs (Strategic Integrated Projects)
- 23 Districts
- CRDP sites
- PGDS (Prov Growth & Dev Strategy)
- District IDPs
- LM IDPs
- Statssa Info (analysis)
- LMC (Functions to be identified)



"What" to buy:

- Proactive acquisition of land based on SPLUM reports



"Who" to assist

"When" to assist

"What" to pass to strategic partners and "what" to pass to RID:

- Community organisation into economic units of production
- Training of communities
- Provision of production inputs
- Enter into strategic partnerships to support
- Identify community and on farms infrastructure required
- Skills development and training (Narysec)

Infrastructure Projects i.e. When and what infrastructure to deliver is determined by community readiness to produce in the identified areas that maximize governments investment. Projects relating to the socio-economic, regeneration of small towns, ICT, and special projects will also be initiated by RID.

Issues for attention

- Steering Committee needs urgent finalisation
- Strategic guidance needed from the Steering Committee on needs, priorities, time frames and funding

Gauteng DID/CSIR Strategic Partnerships

Tshepo Theledi/Themba Belle

Overview of programme of Work

- High level interactions have taken place between MEC for Infrastructure in Gauteng and CSIR Executive
- Followed by presentation of the Department's priority areas by DG to the CSIR

Agreement on the following areas

- Infrastructure Master Plan
- Greening of Infrastructure
- Infrastructure Audits/Assessments
- Capacity Development
- Contractor Development
- Generic ICT Architecture, Greening Office Buildings

Issues for attention

- GIDD agreement on areas of priority
- Preparation of MoU in progress

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The Innovation Hub/CSIR Strategic Partnership

Tsietsi Molewa/Themba Belle

- **Overview of Programme Work**
- MOU has been signed between the CSIR and the Innovation Hub
- Three Task Teams have been set up to look at the following areas:
 - Enabling Echo Systems (NSI)
 - Support to Start Ups (Technology Business Incubator)
 - Fostering Service Delivery (Smart City Project)
- **Issues for attention**
- Although this is an EXCO request for strategic partnering there has been tardiness in the pace of in moving the partnership forward

CSIR Aerospace Strategic Partnership

?/Marié Botha



1. Overview of Program of Work

- CSIR Aerospace Quarterly Forum
 - Collaboration across CSIR units
- CSIR/DST Civil Commercial Unmanned Aerial System (CCUAS) Project
- Aerospace Industry Support Initiative (AISI) utilising CSIR experts and CSIR national facilities
- Establishing and maintaining key relationships with local and international stakeholders
 - E.g. Airbus, SANSA, Astrium Space Transportation, Relevant South African Government Departments and industry

2. Issues for attention

- SAA Aircraft Acquisition
- Clear value proposition of CSIR capabilities to be mapped to European Technology Tree, with Technology Readiness Levels defined
- SANSA Satellite Programme
- South African Joint Aerospace Steering Committee (JASC) launched
 - Hosted at AISI within SIU
- CSIR/Boeing MOU and relationship

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Private Sector

Sasol/CSIR Strategic Partnership

Harko Mulder/Berenice Lue



1. Overview of Program of Work

- MoU Signed on
- Areas of Cooperation identified
 - Environment
 - Energy

2. Issues for attention

- Relationship not leading to tangible initiatives.
- EXCO strategic discussion with Dr Thulani Dlamini required to advise of the way forward in respect of this relationship.

TIA/CSIR Strategic Partnership

Patrick Krappie/Berenice Lue



1. Overview of Program of Work

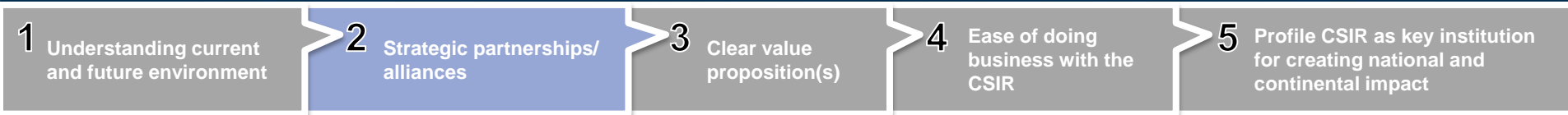
- Steering Committee in place
- TIA/CSIR Draft Framework of Engagement under development

2. Issues for attention

- Concern that there has not been finalisation of the MOU, communication guidelines, and conflict resolution

IDC/CSIR Strategic Partnership

Kugan Thaver/Berenice Lue



1. Overview of Program of Work

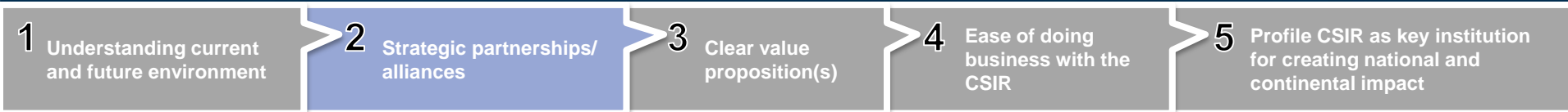
- SteerCom in place
- MoU signed on
- Key areas to be explored to give meaning to the CSIR/IDC Strategic Partnership
 - Infrastructure, Localisation, ICT, Green Industries/Renewable Energy, Water Infrastructure, Africa PICC/SIPs and Licensing & Ventures.
- Mandate to foster industrial development.

2. Issues for attention

- Excellent support to CSIR on PICC/SIPs
- IDC plate seems very full

ChemCity/CSIR Strategic Partnership

Sinothi Maphumulo/Sean Moolman



Overview of Program of Work

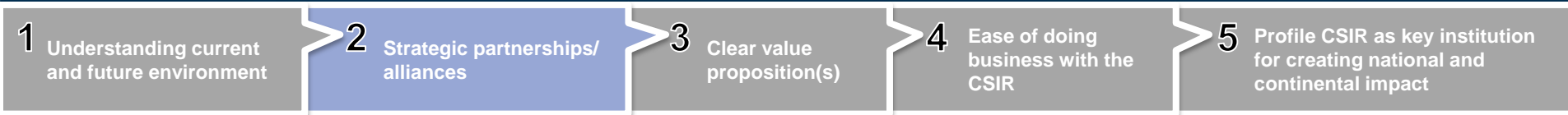
- Potential common areas of interest:
 - CSIR technologies as a technology/IP source for new ChemCity-assisted technology start-ups (or licensed into existing ChemCity-assisted businesses)
 - CSIR R&D assistance to ChemCity-assisted businesses (and to ChemCity in terms of technology feasibility, testing, etc.)
 - Sharing of intelligence/ information on markets, industries, trends (economic, technological, etc.). (This could for example inform/ influence some of CSIR's R&D investments/ technology development focus areas)
 - CSIR support services to SMEs could also be accessed by ChemCity (such as our Enterprise Creation for Development services, and our National Cleaner Production Centre, which can assist in energy efficiency, waste reduction, etc. for SMEs)

Issues for attention

- Next steps/ actions:
 - Draft collaboration agreement being circulated
 - Meeting at ChemCity 14 August 2013 to further discuss and agree on collaboration and to finalise agreement

DuPont/CSIR Strategic Partnership

Bjoern Meth (Mmapule Tshabalala)/Berenice Lue (Sipho Mtsweni)



Strategic intent

- DuPont selected the CSIR as their strategic R&D partner in Africa to apply science to find solutions in food, energy and protection.

Status

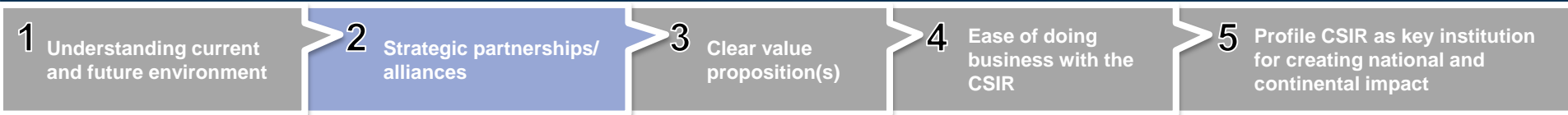
- MoU is in place, workshop held at CSIR on 16 July 2013, concepts document of value add submitted by the following OUs: Bio: Nutrition and health & Pioneer Hi-Bred partnership), BE: Net-Zero building & evaluation of asphalt), DPSS: Safety & Security, ECD, MSM: Multifunctional controlled release fertiliser system & water treatment using nano technology, Meraka, NRE: Water treatment, MDS(?) & NLC(?).

Next steps

- Awaiting outcome of concepts document, and,
- Need to formalise operational structure with clear governance framework. (will include key defined contact points, a coordinated approach to facilitate the setting up of teams comprising parties from either party, as well as an oversight committee)

Business Support: Funding

Eunice Ndeke



Overview of Program of Work

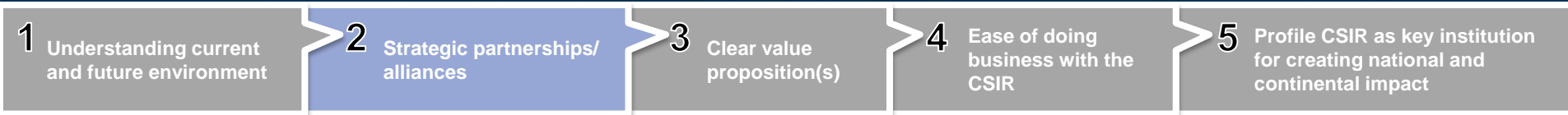
- Support to CSIR Africa Strategy and CSIR WAITRO Africa Focal Point (UNECA workshop)
- CSIR - wide registrations local/international:
 - Registrations were completed - NLC, Biosciences, Built Environment.
 - USA Registration - SAM.gov and Grants.gov.
 - EU FP Registration
 - DIFD
 - Richards Bay Minerals, Sasol
- Competitive Funding Calls published :
 - NRF, European Union, United States, Thrip, DEA
 - Conferences and Science Awards

Issues for attention

- CSIR Strategic Partnerships Blog launched
- Blog updated with new funding opportunities, current Calls, intraweb articles- DuPont, Transnet, IDC and UNECA/WAITRO workshop.

CSIR Programme Office

Ratilal Rowji



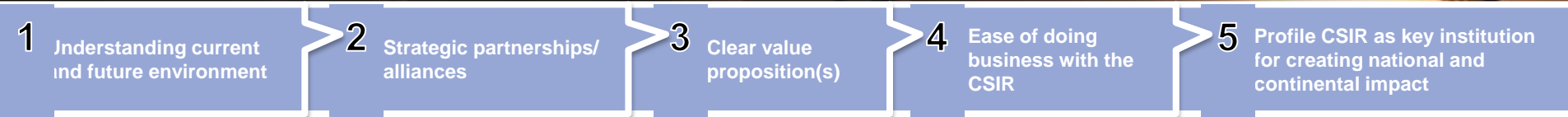
1. Overview of CSIR Programme Office

- Programme management across CSIR with complex multi-year and multi-unit programmes.
- Coordinate CSIR macro activity and plan/s for programme with strategic alliances and partners.
- Harness the full CSIR resources into full CSIR value proposition.
- Formalise and establish the operational framework to allow programmes and portfolios to execute iaw MOUs, MOAs and contracts.
- Support the Key Account Manager and the Technical Lead.
- Support the governance framework.
- Provide programme status to steering committee/s and external stakeholders via dashboards and status reports.

2. Issues for attention

- Formalise the CSIR programme office within the CSIR
- Provide and make accessible all the tools – processes, procedures, templates and documents for use within programme

CSIR Strategic Partnerships Modis Operandi



Thank you